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THE BICYCLING WORLD

FOUNDED
1877

and MOTORCYCLE REVIEW

In which is incorporated "THE WHEEL" (New York) and the "AMERICAN CYCLIST" (Hartford)

Vol. XLI.
No. 24

New York, N. Y., U. S. A., Thursday, September 13, 1900.

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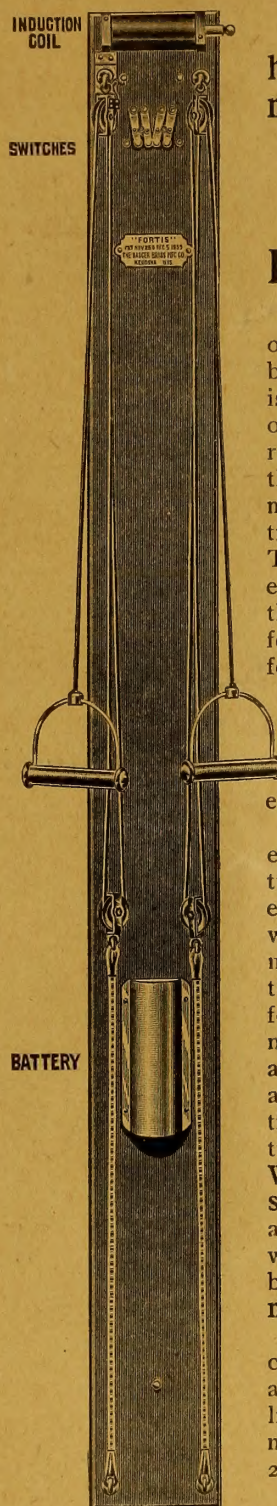
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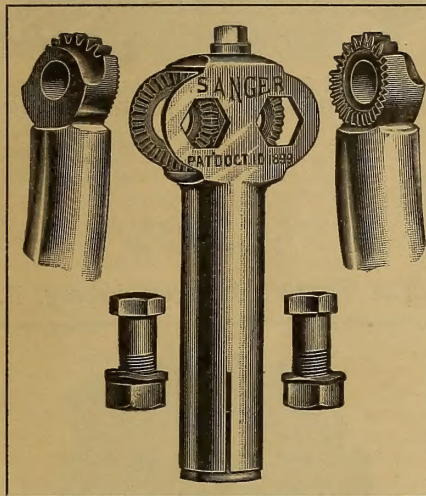
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THE LINE WILL INCLUDE ANYTHING AND EVERYTHING HE MAY NEED—
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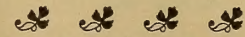


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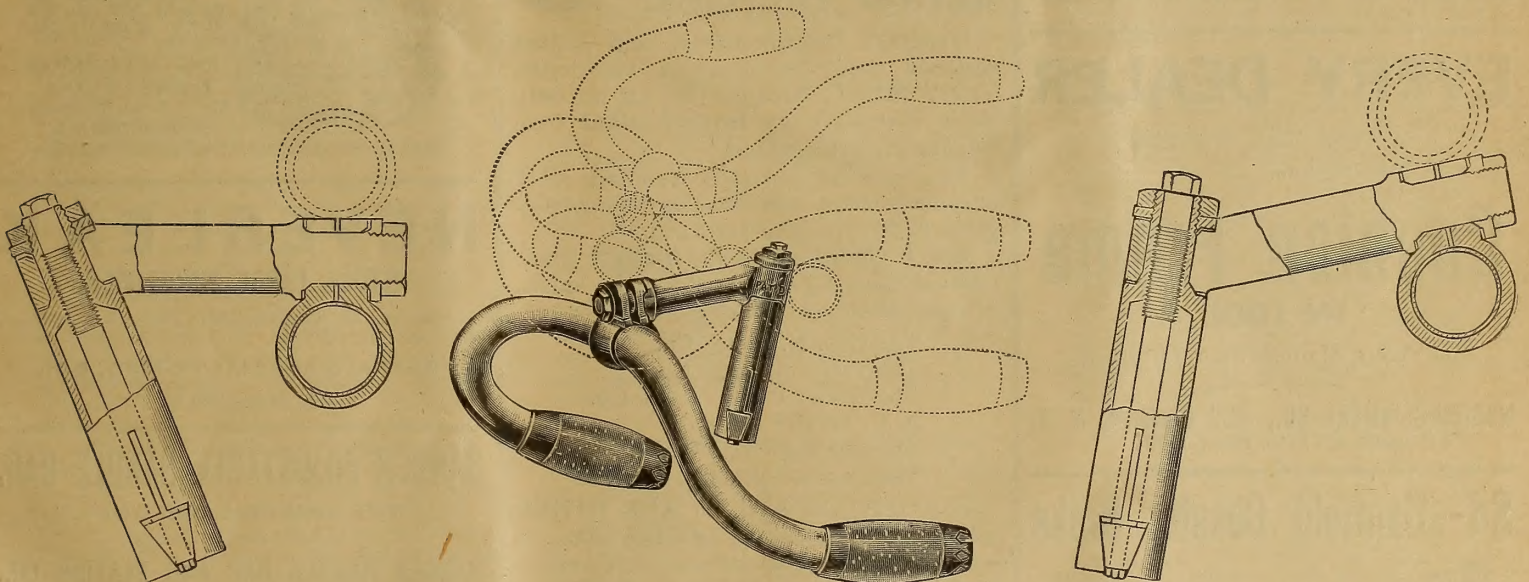
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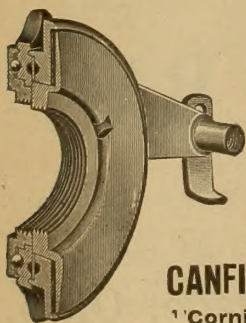
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wheels must have the
best equipments.

There is nothing that gives more value for
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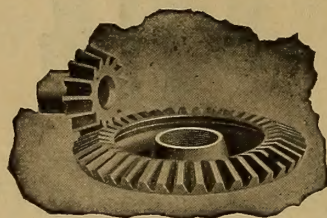
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**NOISELESS IN MUD, WATER OR
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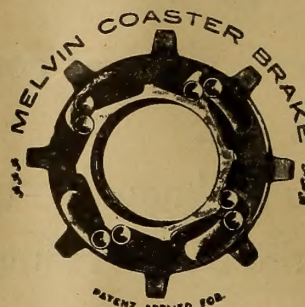
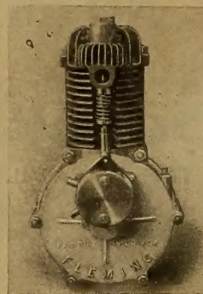
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up to date.

**Build a
Motocycle**

Prices and particulars upon ap-
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The Melvin
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SANGER ADJUSTABLE HANDLE BAR.

"THE ORIGINAL AND ONLY."

Patented October 10, 1899.

SANGER HANDLE BAR AND PLATING CO.,
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L. R. HALL

Enameling and Nickeling Co.

ENAMELING, NICKEL-PLATING

and **VULCANIZING** for the trade.

Carriage Tires
Our Specialty,

4 PORTLAND STREET,
BOSTON.

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLI

New York, U. S. A., September 13, 1900.

No. 24

HONORS FOR ALL

Paris Exposition Awards Handed out with an Over-Free Hand.

Honors were apparently easy at the Paris Exposition. As far as the cycle industry is concerned, practically all of the exhibits received an award of some sort. Several Frenchmen were also specially "decorated" by being made members of the Legion of Honor. The awards in detail follow:

Officers of the Legion of Honor—M. Pierre Giffard, publisher of "Le Vélo" and "Le Petit Journal," vice-president of the cycle section of the exhibition, and M. Eugene Jules Gaston Peugeot, a member of the jury.

Knights of the Legion of Honor—M. Victor Pierre Besse, cycle manufacturer; M. Onfray, of the Compagnie Française des Cycles, and M. Rodriguez Ely, manufacturer of cycle lamps and accessories.

Hors Concours—The following cycle and accessory firms are distinguished in this class: MM. Besse et Hamond, Boyer, Noé et Cie, A. Clément et Cie, Compagnie Française des Cycles et Automobiles, Les Fils de Peugeot Frères, Roxendorf (Sweden), Société des Cycles Gladiator, Société Nationale de la Bicyclette "La Pliante," Compagnie des Automobiles et des Cycles Hurtu, Compagnie Dunlop, Falconnet, Perrodeaud et Cie, Société Anonyme "La Gallia," and Torrilhon et Cie.

Grand Prizes—The Columbia factory of America, Fabrique de Velocipedes "Wanderer" of Germany, and the Fabrique Nationale d'Armes de Guerre of Belgium for cycles, and MM. Michelin et Cie for tires.

Gold Medals—MM. Sociétés des Etablissements Georges Richard, Société Generale des Cycles Rochet-Petit, M. Chapelle (for Acatène), Vauzelle, Morel et Cie, the Cleveland factory of America, the Monarch factory of America, the Chain factory of America, the Adler Farradwerke of Germany, Husqvarna Société de la Fabrique d'Armes of Sweden, Rurkopp & Co. of Germany, Opel & Co. of Germany, Siedl & Naumann of Germany, and the Crescent factory of America for cycles, and for accessories MM. Ball-Pozzi et Cie, Société Anonyme des Etablissements Hutchinson, the Continental Rubber Company of Germany, Pierre Giffard (for "Le Vélo"), and the American Steel and Wire Company of America.

Silver Medals—MM. Terrot, Conturier et Cie, Werner Frères, the Rambler and Sterling factories of America, Reichstein Cycles Brennabor of Germany, the Neckarsulm Cycle Company of Germany, the Beruh Stoever Company of Germany, Prinetti & Stucchi of Italy, Ljungstrom Birger of Sweden, the Canada Cycle & Motor Company and Brown Bros. of Great Britain, the Cosmos Cycle Company of Switzerland, Fabrique de Cycles

de Copenhague of Denmark, Société Anonyme Eerte Nederlandsche Rijwiel fabrik of Holland, Barrière et Cie, MM. Malicet et Blin, Lamplugh & Co., Brosse et Cie, Vital, Bouhours et Duret, Grouvelle et Arquembourg, the Rubber Tire Wheel Company of America, the Ball and Pedal factory, the Plymouth factory of America, the Smith Parts factory of America, Franz Clouth Rhenische Gummy-Vaaren fabrik of Germany.

Bronze Medals—MM. Barré, Dupressoir, Kreutzberger Bros., Daunay, Chenard & Walker, Veuve Plasson, Prunel, Vergine et Cie, Venturino et Tartaglia of Italy, the Feathertone, Geneva and Syracuse factories of America, Société des Etablissements Sage, the Lamb factory of America, Despont et Godefroy, Gautier et Cie, and the National Cycle and Automobile Company of Canada for cycles, and a number of other firms for accessories.

Honorable Mention—MM. Carlorie of Italy, Constantin, Bastaert, Chapelle Frères et Chevallier, Lamandiere et Labre, Peitjean et Sevette, Plainé, Treppeau, Lagarde et Diard, Planq Betry, Chanudet, Le Belin et Cie, Lavigne, Goyon, the Fay, Crawford, Grand Rapids and Tribune factories of America, and Solni of Italy for cycles, with a number of accessory firms unknown in this country.

Colson-Curtis-Day Deal.

It now transpires that Fred W. Colson's deal with the Day Manufacturing Company, of Buffalo, is of wider scope than reported in last week's BICYCLING WORLD, and also that he is not alone in the arrangement, the well known George E. Curtis being a party to it. By the transaction they take over and sell the output of Day cycles, Curtis attending to the Eastern end of the business and Colson to the Western end. Both are trade veterans, and if the combination of ripened experience does not produce telling results it will be cause for remark.

Lozier will Make Motocycles, too.

It is not generally known that the Lozier Motor Company, which will shortly remove from Toledo, Ohio, to Plattsburg, N. Y., will include a motor tricycle in its productions; the fact remains, however, and the machine is almost ready for the market. That George W. Burwell is its designer, coupled with the name Lozier, is sufficient to give it immediate standing; it was Burwell who did so much to make Cleveland bicycles what they are.

Trustee for Boak & Graves.

At Buffalo, N. Y., last week, the case of Boak & Graves, the firm which recently went into bankruptcy, came up for consideration, and F. F. Rick was appointed trustee.

OIL RUNS LOW

Chicago Lamp Concern Places Itself in the Hands of its Creditors.

The affairs of the Seal Lock Company, of Chicago, are reported to be in a tangled condition.

Nothing definite can be learned, but it is understood that the future of the company rests with its creditors, who are not numerous.

The Seal Lock Company made the O. K. acetylene lamp, which was brought out under favoring auspices; the lamp was a radical departure from existing models, its very novelty attracting wide attention. For a while a good business was done, but toward the close of the season it was almost lost sight of.

The peculiar title of the company was another point that often aroused inquiry and comment, and served to further advertise the lamp. It was known to few that it was the name of a somnolent corporation foreign to lamp manufacture, whose charter was acquired by the sponsors of the O. K. lamp.

Can Enter the Premises.

Last week Judge Shipman handed down an order in the United State Circuit Court in the cases of the Central Trust Company against the Worcester Cycle Company, of Middletown, Conn., and the American Surety Company against the same company, allowing C. C. Goodrich, trustee, to enter the premises of the Worcester Cycle Company and take inventory of personal property belonging to him as such trustee. The hearing on the motion to allow the trustee to remove his personal property was adjourned until October 1 at 10 a. m. before Judge Townsend at New Haven.

Southwick Leaves the Trade.

F. A. Southwick, long the advertising manager of the New Departure Bell Company, has relinquished that position and with it all connection with the cycle trade. He has moved into an entirely different field, but his ability assures that he will not be long in making an impression wherever he may go.

Failed to Deliver.

Judgment for \$4,572 was entered last week against the Elgin Automobile Company, of Chicago, in favor of Solomon L. Pakas, dealer in bicycle supplies, for damages for breach of contract to sell him twenty-one automobiles. Pakas paid \$100 on account for the first delivery, but never received any of the automobiles. The Elgin company formerly manufactured bicycles.

ORGANIZING IN BROOKLYN

Dealers There Realize That Now is the Time When Union Gives Strength.

Alone of all their fellows in the trade, the dealers have failed to effect any live organization, in spite of many efforts to do so.

A few years ago local organizations were effected in many cities and towns, largely owing to the efforts of the National Cycle Board of Trade, but many of them failed to do any real work, and in the course of time they nearly all fell into a calm and very deep slumber. Likewise a national organization of dealers was formed a few years ago, but it never got beyond the formative stage or accomplished anything.

At the present time Brooklyn, N. Y., dealers are engaged on this Herculean task, and so far a fair measure of success has attended their efforts. A preliminary meeting was held last July, when the Bicycle Dealers' Association of Brooklyn was formed, and steps are soon to be taken looking to the strengthening of the association and to placing it on a permanent basis. The motive that led to the initial meeting was a desire to bring about a reform of the traditional abuses of the trade.

During the past year or two the prices for wheels and repairs in the City of Churches have been cut so low that a poorer quality of workmanship and material necessarily followed to meet the corresponding cut in prices, there being no profit otherwise for the dealer.

Things were going from bad to worse, until H. W. Wilkens and William A. Molter, two well known Bedford avenue dealers, got together and conceived the idea of forming a trade association through which prices might be regulated and the quality of material and workmanship improved. The question of early closing on Sundays was also discussed, and this was made the primary excuse for a petition circulated by Messrs. Wilkens and Molter, who secured between them the names of a score of dealers, who agreed to close their stores and shops at 1 p. m. on Sundays from July 15 to September 16 inclusive, and to attend a meeting "to discuss matters of mutual benefit to the trade" at Molter's store, No. 1,144 Bedford avenue, on July 11 last.

About a dozen dealers attended that meeting, at which the first steps were taken to form a bicycle dealers' association. A temporary organization was effected, with H. L. Wilkens as president and William A. Molter as secretary and treasurer. It was agreed that a membership fee of \$1 should be charged, and that there should be no dues, but that all necessary expenses, if any, above the amount received for membership fees should be met by assessment.

Another meeting was held a week later, at which a half-dozen more members were enrolled, and a uniform price list was formally adopted for bicycle work of all kinds. It was also agreed that no bicycle tools or pumps should be loaned, but that a nominal charge should be made for inflating tires, tightening bolts and nuts, adjusting handle bars, saddles, etc.

Much good has already resulted, both to the dealers and to their patrons, from the price list adopted, and large printed copies of which are now conspicuously displayed in all sections of Brooklyn, as the prices are uniform and fair, and all work done at the figures named is guaranteed, one of the objects of the association being to give the customer better work at a fixed price.

The Sunday closing movement started by the association has also been successful, as

in Bedford avenue, which is the main thoroughfare for cyclists in Brooklyn, now close at 1 o'clock Sunday afternoons until the 16th inst.

At the next meeting of the association, due notice of which will be given to members, permanent officers will be elected. There will be a general discussion on matters of interest to the trade, and plans for the future will be laid. Manufacturers and jobbers will be urged to give a special discount to dealers who belong to the new association, in order to encourage membership in the latter. A system of fines to be imposed upon members who violate any of the pledges exacted of them when they enroll will also be considered.

President Wilkens and Secretary and Treasurer Molter have been particularly active in securing members for the association, until the number enrolled at its first meeting has been more than trebled, and from present indications it will not be long before every bicycle dealer in Brooklyn will be actively identified with the new association.

The membership list now includes the following: President, H. L. Wilkens; secretary and treasurer, William A. Molter; Durant, McLean Co., William H. Boynton, A. R. Townsen, H. Heyer, Julius H. Bindrim, J. W. Mears, F. S. Richards, A. G. Woods, Peter Guinan & Co., William H. Wells, Searing & Co., Discroll & Herring, George B. Pieper, C. B. Gwathmey & Co., A. J. Foren, T. W. Razous, Alexander E. Pastre, John H. Brown, Milton Hewson, G. A. Boettner, Charles W. Ladd, Snethen & Goldsmith, J. A. Allsopp, F. N. Bruner, C. A. Cook, K. Goodman, Kleinberg & Falk, Edw. F. Freese Company, Abe Kaplan, Albert H. Jenkins, M. Stowell, M. Kaplan, Con. Schmidt, J. Townsend, Lawrence James, Hibbard Rugles and C. D. Barklay.

Van Rodensteins now Bankrupts.

Justice Bradley, sitting in the Bankruptcy Court, has issued a decree adjudicating the West End Cycle Company (Karl and Arlie von Rodenstein), Washington, D. C. He has also appointed Francis H. Stephens receiver for the firm, who will conduct the business until the appointment of a trustee in bankruptcy. When the petition in voluntary bankruptcy was first filed Arlie von Rodenstein, as THE BICYCLING WORLD stated, refused to be a party to the proceeding, but he has since joined with his brother. The case has given rise to an interesting question which must be decided. It appears that shortly after the filing of the petition the agent for the store in which the business of the firm is conducted seized certain stock to the value of \$200 to satisfy his rent bill of \$100, it being his intention to sell the stock in question at auction. The receiver has asked the Court to issue a rule against this agent requiring him to show cause for such action. It is a rule in bankruptcy cases that the filing of a petition in voluntary bankruptcy stops all legal proceedings.

Brass Trust After it.

Press dispatches from Hartford state that the old Pope tube plant at that place is being inspected by officials of the Brass Trust, with a view of securing possession of it either by purchase or lease. It is said to be a part of the plan to use the plant as a branch of the Benedict & Burnham Company, of Waterbury, one of the largest brass manufacturing concerns in the trade.

Until it was absorbed by the Tube Trust the Pope tube plant turned out the nickel steel tubing used in the construction of Columbia bicycles. It also made 50 per cent carbon steel tubing for the trade.

CYCLING'S THREE C'S

They Will Play, and Deserve, a Still Larger Part in the Trade.

There is an alliterative ring about the three C's which constitute the novelties in cycle construction—the chainless, the cushion frame and the coaster brake—that has an alluring sound.

While it is true that the standard machine contains no one of these features, it is equally true that each of them has stimulated sales and been instrumental in lifting trade partly out of the rut into which it has fallen. No maker or dealer has suffered by taking them up and pushing them energetically.

This being so, it is remarkable that they have not been brought more to the front. In the case of the coaster brake, the progress has been all that could be expected in one season, and almost all that could be desired. But with the chainless and the cushion frame the difficulties encountered have been so great that the progress has been slow.

The fault has not been with the public. Although not anxious to try new things, they have shown a willingness to do so whenever there seemed to be a reasonable chance of their turning out all right. More than this it is not fair to expect from them. They pay their money, and it is no more than fair that they should have a reasonable assurance of getting value for it.

It is the trade, to be perfectly frank, that has, as a whole, stood aloof from the three C's—or from two of them, at least. They have shown a degree of scepticism, of over-caution and of non-progressiveness that might have been pardoned half a decade ago when the tide of prosperity was in full swing. But at this stage of the game it betrays a lack of enterprise that is anything but encouraging.

One does not have to travel far afield to hear the highest commendations of one or more of the C's. The coaster brake comes in for the lion's share, of course, but neither of the others is overlooked. They have added much to the pleasure of riding, and could do so on a much larger scale if advantage were taken of the opportunity presented.

The strongest testimony in their favor, however, comes from that portion of the trade that has had actual experience with them. There is no divided sentiment in that quarter, but a frank admission that it has paid to push the innovations.

In this fact there is food for reflection on the part of those who have hitherto held aloof from the policy of progressiveness.

Holmes Makes a Change.

Cycling will lose one of its familiar figures when James S. Holmes, jr., for three years manager of sales of the Remington Arms Company, retires from that concern, which event will take place very shortly. He will assume the general management of the Remington Automobile and Motor Company, recently organized at Ilion, N. Y., to engage in the manufacture of automobiles.

Previous to his connection with the Remington company Mr. Holmes occupied a similar position with the Waltham Manufacturing Company. Like many another good man, he graduated from the field of League politics, he having been chief consul of New Jersey prior to his entrance into the trade.

with one or two exceptions all the dealers

HOLLEY'S MOTOR BICYCLE

Pennsylvanian Springs His \$150 Machine —
Some Novel Ideas Incorporated.

After considerable experimentation and delay, George M. Holley, of Bradford, Pa., who recently turned his business into the Holley Motor Company, has his promised popular-priced motor bicycle ready for inspection. The accompanying illustration shows the first of the batch that is now being made up.

As will be seen, the machine differs materially from any of the others that have seen the light, and if it bears out the claims made for it it will play no small part in hastening the motorcycle era. The position of not only the motor, but of the oil tank, the battery and the rest of the motive power, is in itself no small departure, and one that gives the machine a clean and compact appearance, while the use of the familiar chain and sprocket gearing instead of the belt and pulley is another item that will command attention.

While the motor appears to be a part of the frame, this is really not the case, as

medium of the chain; the rear sprocket is either 36 or 48 teeth, according to the roads on which the wheel is to be used.

The price, \$150, is not the least interesting feature of this interesting bicycle, which, if it even begins to bear out its inventor's claims, is destined to work wonders in more ways than one.

An Old Debt Crops Up.

An attachment was received in New York this week that recalls that almost forgotten but once large figure in the trade, Parker H. Sercombe, then of Milwaukee, now of Mexico. The attachment is in favor of Thomas W. Wampler on an assigned claim for \$11,339. It was alleged that on December 28, 1892, Mr. Sercombe, at Milwaukee, Wis., guaranteed payment of one-fourth of any indebtedness of the Sercombe-Bolte Manufacturing Company of Milwaukee to the Wisconsin National Bank of Milwaukee.

Making Motorcycles Go.

L. C. Havener, the Worcester (Mass.) dealer, is an inspiring example to his fellows. Within the past six weeks he has sold three motorcycles, and he has other sales that are rapidly ripening.



HOLLEY'S POPULAR PRICED MOTOR BICYCLE.

one of Holley's big claims for his motor is its adaptability. It is of $1\frac{3}{4}$ h. p., and weighs, he says, but twenty-four pounds, and will fit any bicycle having a crank-hanger with an inside diameter of $1\frac{1}{8}$ inches. It is affixed to the frame by clamps, and may be detached, the inventor claims, in five minutes or less.

The motor is of the four cycle gasoline type, air cooled, and is supplied with either electric or tube ignition, as preferred.

Mr. Holley supplies a diagram of his motor, but as it is an old one, and appears to differ in some respects from that used on the bicycle illustrated, it is of small service. Briefly, however, he describes his engine about as follows:

The cap of the carburetter (or oil tank) is the inlet for air; there is one lever to regulate the amount of vapor going to the motor, thereby regulating the speed, and another regulating the quality of the mixture; the supply pipe leads from the carburetter to the inlet valve; the igniter plug screws into the exhaust valve; leading from the exhaust valve is the exhaust pipe, which leads to the muffler, it being tapped to supply heat to the carburetter, thereby keeping a constant temperature; there is an inclosed crank case and gear, and igniter timing device cover, also a fly wheel, the gear being fastened to it which drives the rear wheel, through the

CAUSES OF DECLINE

Figures From Philadelphia on Which Some Sane Deductions are Based.

Press and public alike are very much exercised over the waning popularity of the bicycle, as the former express it, and all sorts of questions are asked and explanations offered as to the cause.

Apropos of the decrease in the number of cyclists entering Fairmount Park, shown by the report for August made by the exceptionally well informed guards of Philadelphia's favorite recreation ground, the figures showing a falling off from 91,998 in 1899 to 40,067 last month, "The Inquirer" of that city goes into the matter at some length editorially. It says:

"What are the causes for this change? When the bicycle was at the height of its popularity people who remembered other crazes which had had their little day and passed away used to wonder whether the bicycle would have a similar history, and all such inquiries would be answered by the enthusiasts with the assurance that such would not happen, that the bicycle would continue on its conquering way until pedes-

Starts Off Auspiciously.

Under auspices that were beyond reproach, the automobile and motorcycle races, promoted by an association in which W. K. Vanderbilt, Jr., was the leading spirit, were run at Newport, R. I., last week with marked success. "Society" was out in force, and gazed and speculated and applauded with unwonted abandon.

A very creditable showing was made by the motorcycle contingent, which was headed by Kenneth A. Skinner, whose De Dion tricycle not only headed its class but gave the powerful automobiles a good race in the championship race, being beaten only by the monster owned by the hero of the occasion, W. K. Vanderbilt, jr. In the tricycle class race Skinner distanced Harold Vanderbilt and finished ahead of J. Boislot, the second man, by more than a minute, his time for the five miles being 10:30 $\frac{1}{2}$.

The championship event, open to all classes of machines except two-wheelers, went to W. K. Vanderbilt, jr., in 8:54, with Skinner second in 9:22 and A. L. Riker a bad third.

The races were run on a half-mile track, unbanked, and some of the time made was remarkably fast. The attendance was excellent, running well into the thousands, and the gate receipts netted a handsome sum.

trianism had become a lost art and the street car business had ceased to pay expenses.

"These prophecies have failed. The wheel is still ridden for utility and to a reduced extent for pleasure, but its supremacy is over. A variety of causes doubtless combined to bring about its downfall, but of these the strongest was the influence of the women.

"It was the women who gave it its extraordinary vogue, and it was they who decreed that its reign should terminate. The average woman gave up the wheel, partly because she was tired of the toy, partly because she discovered that so long as she was willing to accompany them on the wheel her men friends didn't ask her to go anywhere else, partly because she grew weary seeing them coming around in bicycle rig, but chiefly on account of her realization of the fact through experience that bicycle riding means bicycle dressing and of her unwillingness to be at the pains or go to the expense of providing herself with the additional clothing.

"As a means of getting from one place to another the bicycle is as popular as ever, and is certain to be used more and more, particularly as roads are improved in the rural regions, but as a pleasure pure and simple it has seen its best days."

Motocycles Faster than Locomotives.

That the motorcycle brings 1,000 miles in twenty-four hours within the range of probability the recent Paris-Toulouse road race demonstrated.

Teste, the first motocyclist, on a 7 h. p. tricycle, covered the distance, 1,446 kilometres (over 900 miles), in 29h. 5m. 3s., an average of well under two minutes per mile for the entire distance—a marvellous performance. There were fifty-five starters, but Teste's time was beaten by but four other vehicles, all powerful racing machines, the winner being a 20 h. p., which did the distance in 26h. 43m. 57s.

In describing the race one writer would have the world believe that the tires proved the weakest point of the vehicles. "The heat of the sun," he says, "with the heat of frictions, caused the tubes to melt. There was a frightful slaughter of pneumatics all along the way. To one single maker the race cost no less than 12,000 francs (\$2,500) in india rubber! This is rather expensive sport!"

Is Fond of Horseflesh.

It is not generally known that E. J. Willis, the well known Park Row jobber, is a great lover of horseflesh. He is a familiar figure on the New York Speedway, seated behind a fast trotter, and it is very rarely that he is compelled to take dust even from the flyers of National reputation that congregate there. By a mixture of skilful and prudent management Willis has accumulated sufficient of this world's goods to enable him to gratify such a penchant as this.

It is announced by B. S. Dunn, secretary and treasurer of the New York Motor Company, that as soon as his company can obtain possession of the factory of the Worcester Cycle Manufacturing Company, of Middletown, Conn., it stands ready to do so.

How Prices are Pulled Down.

THE BICYCLING WORLD has before remarked the thorough saturation of the retail trade with the doctrine of low price, an ill that has worked no small harm to the industry.

A pretty example of the sort—of the readiness of the dealer to tear down the price of an article before it has even had a chance to upbld itself—is brought to notice by the Fitchburg (Mass.) "Sun." In the course of an article reporting the dullness of the retail trade, that paper says:

Some of the bicycle dealers expect that when the price of the autos gets down on a level with the prices wheels sold for when they first came out, many people will own their own horseless carriage. The price of automobiles has been dropping since they were first put on the market, and one dealer in wheels said last night that he would not be surprised if next year some enterprising maker of automobiles would come out with one listed at \$200, and in that event there is no doubt many would be seen on the streets of this city. About \$600 is now the lowest price a fair kind of self-propelling carriage can be bought for. This same kind of machine sold at first for \$1,000. In a few years this same vehicle will drop to about \$200, it is confidently expected by the bicycle man who talked with the "Sun."

Her First and Last Ride.

That the motor vehicle is the cynosure of all eyes just at present is being abundantly demonstrated. Down at Southington, Conn., the other day, the agricultural fair authorities arranged as the fitting culmination of the day's feature an automobile ride for an old lady who had just passed the century mark, and the applause of the spectators proclaimed that they had made a happy choice.

With the Approach of Fall.

As the days become short, the carriage of a lamp of some description on the part of the house-to-office rider becomes more and more necessary. Antiquated patterns that have been mouldering away for months or even years are drawn forth from their hiding places and made to do service once more. One rider noticed recently was carrying a stable lantern, tied with twine to the handle bar and head of the machine. Apparently it had not been called on to do service as a light giver, but was carried merely as a precaution should its owner be detained too long on his way home. It will not be long, however, before it will be necessary to test these makeshifts and see what they are really worth as light givers. Then many of them will be cast aside and real lamps procured.

Two Bicycles to His String.

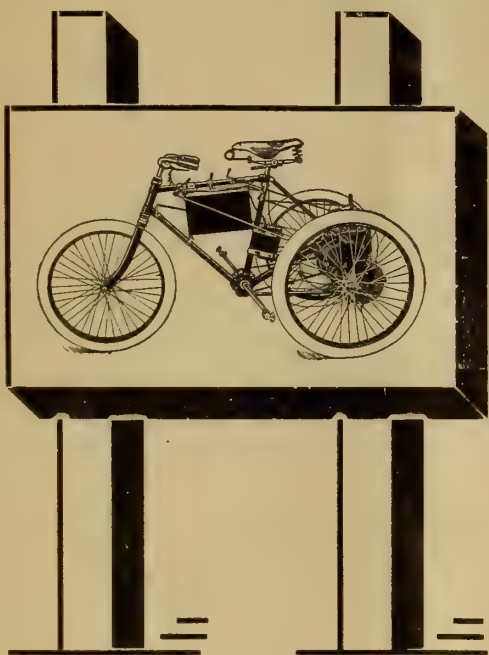
Because Frank Kapinos, an eleven-year-old boy, paid \$17 for a bicycle at Buffalo, N. Y., last week, without hesitation, the dealer naturally suspected something wrong. He mentioned the matter to the police, and it was found that the boy had stolen \$20 from a relative and invested the balance in another bicycle, this time a second-hand one.

To Catch the Popular Favor.

The belief of country fair managers in the passing of the bicycle is well evidenced by their eagerness to substitute motor vehicle races and exhibitions for the bicycle events that formerly graced their gatherings.

Motocycles on Instalment Plan.

One of the English concerns is already selling motorcycles on the instalment plan—\$5 per week, the entire cost of the tricycle to be paid within twelve months, are the terms.



THE
NEXT
STEP.



A bicycle dealer is not necessarily superstitious because he believes in signs.

Those who have noted the signs of the times realize that the interest in their business has been sustained by the easy steps of progression—the efforts of the maker to make the life of the pedal pusher a happy one.

First the high wheel—then the safety. The hard tire—then the pneumatic. Interest has been held this season by the coaster brake, but the real boom is coming with the

ORIENT AUTOGÓS.

Stop and reflect! Your trade will not jump from a bicycle to an expensive automobile.

The Orient Autogo is progression's next step by which "you can catch your second wind." But to catch the "second wind" you must catch the Autogo.

Do it to-day—will you?

WALTHAM MANUFACTURING CO.

THE BICYCLING WORLD
 FOUNDED 1877
 and **MOTOCYCLE REVIEW**
 In which is incorporated "The Wheel" and the "American Cyclist."

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
 Address us at P. O. Box 2349.

NEW YORK, SEPTEMBER 13, 1900.

Our Acquisition.

In bidding goodby to Boston and in heralding its removal to New York THE BICYCLING WORLD but two weeks since promised that "no opportunity would be lost nor effort spared to increase the value of the publication to its patrons and to demonstrate that 'age cannot wither nor custom stale.'"

We are pleased to be able to thus early announce a transaction calculated to achieve that end. The opportunity to acquire our local contemporary, "The Wheel and Cycling Trade Review"—next to THE BICYCLING WORLD the oldest cycling journal in America—presented itself, and the acquirement was consummated on Friday last, 7th inst.

On that date The Goodman Company purchased "The Wheel" outright from its owners, the F. P. Prial Company. "The Wheel" ceased to exist on that date; as our title-head indicates, it was consolidated with and is now incorporated in THE BICYCLING WORLD AND MOTOCYCLE REVIEW.

The purchase includes the right, title, good will, subscription and mailing lists and other property comprising "The Wheel's" plant. The transfer has been already arranged, and with this issue THE BICYCLING WORLD begins the carrying out of "The Wheel's" subscriptions.

Having previously absorbed "The American Cyclist," of Hartford, Conn., this transaction leaves THE BICYCLING WORLD the only cycling weekly in the East, and with the added scope and strength which "The Wheel's" lists bring to us we feel that we are in better position than ever to render service and still more of it to our patrons and to the trade generally; certainly none will more faithfully strive to so do.

The purchase of "The Wheel," it may be well to add, in no way alters the composition of The Goodman Company or the personnel of THE BICYCLING WORLD'S staff.

What is Experience Worth?

It is doubtful whether in all this broad land there could be found a more poorly paid individual—in proportion to his risk and his work—than the bicycle dealer.

This deplorable condition is not of recent growth, however; nor is it due entirely to the vicissitudes the trade has passed through of late. The latter have only served to accentuate the fact—to bring it out in brighter, or darker, relief.

In the palmy days of the business, when, if ever, dealers as well as makers should have been making money right and left, the same story was to be told. The dealer worked hard, took big risks—and got almost nothing in return.

The number of dealers who have made money in the two decades of the trade's history will reach but a fraction of one per cent of those engaged in it. Of these fortunate few no small proportion afterward sunk their profits in the same business that had yielded them. This reduces the number who stand winners to-day to a residue almost inconceivably small.

What caused this lamentable showing is a question of much less value than the companion one, What will be the outcome of the future? Are the lessons of the past to go for nothing? Has experience taught the dealer nothing? And is history to record, some dozen or more years hence, that the opportunities afforded by the motorcycle eluded the trade in the self-same way?

Or, to deal with a matter of even more immediate and practical interest, is the bicycle trade to be handled in the same old way next season and the following ones?

Is it not time to drop the business-at-any-cost cry and adopt methods based on common sense and ordinary commercial ethics?

It is perfectly plain that the old methods must be discarded. They have failed to jus-

tify themselves. No better time for a new deal could possibly be found than the present.

Policy That Pays.

Because the public has not clamored for change and novelty during the past few seasons, there has been a disposition on the part of the trade to assume that they do not want it.

That this is a fallacy has been suspected for some little time, and events seem to be ripening this suspicion into certainty. It will scarcely be contended by even the most persistent advocate of a "uniform" policy that "uniformity" secures popular favor, much less make sales. A thorough trial of this policy has pretty effectually dissipated such a belief.

In the future, as in the past, the bulk of the business will be done in standard patterns. They are time tested, reliable and—above all—cheap. Their buyers are no longer looking for the latest patterns, with their talking points and a mass of detail work, all of which cost money. They want a practicable vehicle, and have no money to waste on fripperies that do not count in the wear or the running.

For such makers as decide to cater to this class there is but one possible course open: Cleave closely to the line of uniformity and build machines with the utmost economy consistent with sound workmanship. Banish all thought of producing the best; substitute for this a determination to give the greatest value for the money. Such a course is almost certain to justify itself.

But as all riders are not circumscribed in their selection by the bald question of price, so all makers—and dealers, too, for that matter—are not compelled to abstain from efforts to change and improve their product. They will find that, even regarded simply as a matter of dollars and cents, it will be well to go outside the beaten path and endeavor to give something different from and better than the bulk of their competitors.

It is only necessary to run over the list of manufacturers who have during the past season or two endeavored to give their patrons a change, and see how they have fared. Almost without exception they have found a progressive policy a paying one, and are more determined than ever to continue it.

There is everything to confirm them in this course. Not only do they get a better price for their machines, but they please their agents, who, in turn, attract a better class of trade and have more satisfactory dealings with their customers than would be possible in any other way. In addition, the competition is not nearly so great, and the results are better proportioned to the effort.

Makers of this class will lose nothing by relieving their sleeves of whatever novelties may be stored there. The retailers and the public are ready and anxious for them, and there will be little difficulty in coming to an agreement in short order.

The Term "Motocycles."

Although it is difficult to understand why it should be the case, some of those making or about to make motocycles report that a too general impression is abroad that the term "motocycles" is meant to define motor bicycles. One of those interested states that he has been obliged to do considerable letter writing to explain away this notion.

Why the idea should obtain none can say. Certainly the term "motocycles" seems broad enough to make its meaning clear. It includes any form of cycle fitted with a motor, whether bicycle, tricycle, tandem, triplet or quad. Each is a motocycle; collectively they are motocycles. If a motor bicycle was in mind it would be termed a motor bicycle; if a motor tricycle, it would be called a motor tricycle.

The matter seems so very simple as not to require mention, but we are assured that the idea that a motocycle is a motor bicycle is sufficiently general as to deserve attention and correction. Those who entertain the idea appear to imagine that anything not a motor bicycle is an automobile. Of course, the motor bicycle, like all other self-propelled vehicles, is an automobile, just as all forms of bicycles, carriages and wagons are literally vehicles, but as their construction determines their class and name, so does the construction of the motor-driven vehicle still determine.

The addition of pneumatic tires did not change the name or nature of either cycles or other vehicles; no more will the addition of a motor. The cycle form of construction is so distinct and separate from all other forms of vehicle construction that there can be no room for doubt or confusion. Anything in the form of a cycle to which a motor is affixed is a motocycle, and is of and for the cycle trade.

In England particularly it is noticeable that they are disposed to take the contrary view and place motocycles in the automobile class; but there is no sound reason for it. Some of the bicycle papers there eschew mention of motocycles or speak of them as very distant relatives of man-driven cycles, but the leopard does not change his spots; so the cycle is still a cycle, whatever comes or goes, and, fitted with motors, cycles become and will remain motocycles as long as the manumotive type remains to require the distinction.

Repairers Affected Too.

It is not surprising that the repairman, along with his fellows in the cycle trade, has felt the falling off in trade that has been so apparent this year.

With him the season opened remarkably well, and during the first couple of months he congratulated himself on the pleasing prospect before him. But he had hardly settled himself comfortably in this belief than he perceived the first indications of a change.

Just when the season with him should have been approaching its height it began to fall off. It was unnatural, gauged by the

experience of previous years, and for a time the repairer was unable to understand it. It was quite out of his experience, and he could do nothing but shake his head over it.

There would be times when he was rejoiced by the appearance of a revival. Work would flow in, much in the old time way and with the customary adjurations to "rush it through." But it only proved to be a spurt, and the falling off was soon noticeable again. By the time the season was half over it had become apparent that the year was to be an off one, and most of the repairmen settled down to a contemplation of this unwelcome fact.

It is not that there has not been plenty of repairing. There has been, and the falling off was noticeable only because the business had assumed such huge proportions and had attracted so many different concerns that there arose a general cry when expectations did not materialize. There were so many to divide the work among that it taxed the boom years to keep it up to par.

The result has been that repairers generally have had a poor season. This is particularly applicable to the smaller fry, they having been hit harder than their competitors. The "kitchen repairers," especially—men who work at this trade at nights and on Sundays—have been dealt some heavy blows and they are quitting in shoals.

In the repairing business as in the other branches of the trade, the great evil was the presence of entirely too many concerns. Many of them should never have engaged in it, and were attracted simply because of the bicycle craze and because they could not make money at anything else. The trade as a whole will be better off without them.

The sifting out process will undoubtedly continue throughout the fall and winter. By spring there will be—notwithstanding the inevitable recruits from the ranks of the fly-by-nighters—fewer people to divide the business between. For those remaining there should be enough business left to show an improvement.

Making Good Progress.

One of the most noteworthy facts connected with the manufacture of motocycles—and one that has attracted little or no attention—is the steady growth that has taken place in the size of the motor.

Starting with baby motors, as they would be termed in the light of present knowledge, rated at one and one-quarter horse power—this was the size of the initial De Dion production—they have already passed the three horse mark, and have only made a fair start. Already five and six horse power motors are under way, and the end is by no means in sight.

Only those who have studied or examined the gasoline motor can form an idea of its marvellous ingenuity. Seemingly complex in its construction, it is yet very simple and practical in its workings, but the initial difficulties in the way of producing any but the very smallest sizes seemed at one time almost insuperable.

Step by step these have been overcome, however. Along with, or even in advance of, the ability to produce larger motors ran the demand. More power and more speed were the cries, and, spurred on by them, the manufacturers of motors worked hard and were able to respond nobly.

It is fortunate that this was so. The motor is the keystone of the arch upon which motocycling is built, and any inability to keep it in the line of progression would have exceedingly serious consequences.

There is a feeling that the complete withdrawal of the trade from public events, in which bicycles figured as chief actors was unwise. Such events undoubtedly kept the bicycle well in the foreground; and, viewed merely as an item of advertising, they were usually well worth the outlay. In fact, it was the habit of not a few concerns to view them entirely in this light. They charged the expenditures directly to advertising, and accounted their object attained if they attracted what they deemed sufficient attention from the public.

To give oneself up to painful reflection is a very natural occupation for the dealer just now, but not much good is likely to come of it. A more sensible course would be to go over the situation carefully and decide upon your future course. For the time has come to make a decision. Some must go while others stay. Upon the latter class is urged the taking to heart of the sad lessons of the past. A repetition of them is almost certain to have the same result.

If one appreciates the frequent changes of locomotives on trains covering one thousand miles over smooth rails he can begin to appreciate what the motocycle makes possible on the ordinary macadam highway. To average better than two minutes per mile for more than nine hundred miles, as one tricycle did in the Paris-Toulouse road race, suggests the couplet: "O steam, where is this victory! O bird, where is thy wing!"

September is well nigh half gone and still there is little talk of 1901 patterns. Novelty there may be in plenty, but they are remarkably well concealed. If surface indications go for anything, the forthcoming manufacturing season will be late in starting.

Who will give us the first long cranked, high geared American bicycle? The talk and interest that will go with and follow such a machine, if properly heralded, ought to help some one's business not a little.

American tires continue to be the *bête noir* of the seaside puncture healers.—English Cyclist. Then your "seaside puncture healers" must be an uncommonly thickheaded lot.

MAN WHO KNOWS MOST

He Who Has Had Most Experience With
Motor Bicycles Gives His Views—
Verdict is Entirely Favorable.

To the seeker after knowledge concerning the motor bicycle no better advice could be given than to go, if possible, to John Robbins, experimenter and successful demonstrator of the entire practicability of this latest entrant in the wheeling field.

To Mr. Robbins, who is the Waltham Manufacturing Company's motor mechanical expert, is due much of the credit for the successful debut of the Orient motor bicycle. In conjunction with his chief, President Metz, he worked long and faithfully both on the experimental machines—of which there were several, some of them imported—and on the successful one. Frequently the two were to be seen together, sans coats and with sleeves rolled up, discussing some knotty point or testing the efficacy of its solution; while test after test was made, many of them with excellent results, but all discarded because there still seemed room for progress.

At the beginning Mr. Robbins says he was not more strongly prepossessed in favor of the motor bicycle than were many other experts. He thought it would go all right, and that, under certain conditions and with some restrictions, it would prove practicable and a permanent addition to the motor vehicle family. But even in going this far he was troubled with not a few doubts and misgivings; and he looked forward to the day when they should be resolved and he should know just how near the machine would come to the expectations formed of it by the public.

The early experiments added strength to these doubts. The attempt was made to adapt the ordinary bicycle, with the least possible change, for the purpose desired. Various places for the motor and other parts were tried, while use was made of a chain for the purpose of driving the machine. The results were but half-way encouraging. The machine would run, and run fairly well. But it was by no means an ideal machine, and many of the faults attributed to it by its critics were present.

The consequence was that the experimental machines were consigned to a corner of the experiment room—a place much frequented by President Metz, and over the door of which is posted the legend, "No admittance except by order of the president"—and a fresh start was taken. An entirely new frame was designed and constructed, special reference being had to the most desirable place to put the motor and other working parts. The result was the special-shaped frame, with its extra long wheel base, which has since become familiar to the public.

The next step was to decide upon a method for transmitting the power from the motor to the bicycle. One of the chief objects sought was the elimination—or, at least, the reduction to a minimum—of the excessive vibration so noticeable in many machines driven by gasoline motors. A belt running upon a flange attached to the rear wheel was experimented with and found to work like a charm. A method of tightening and

loosening the belt was adopted, and then the machine was practically finished.

Its trial trips—both on the road and track—were eminently satisfactory. Speed and power were there in plenty, yet the faults so freely prophesied as accompanying all motor bicycles were, in spite of the high-powered motor, either entirely absent or reduced in such degree as to be scarcely noticeable. As may be imagined, this pleasing fact was shortly made plain, and preparations were soon under way to turn out the machines on an extensive scale.

Through these various stages of development it was to Robbins that the bulk of the practical work of riding and testing the new machine fell. He performed the work in a thorough manner, and soon came to know the peculiarities, the good and bad points, of the machine like a book. His opinion of it, gathered during a running conversation, punctuated by numerous questions regarding salient features, is best expressed in this free rendition of his own words:

"The people who criticise the motor bicycle, and find all manner of fault with it, are talking about something they know absolutely nothing about. Entirely outside of the fascination of the machine, due to the presence of the motor, there is this to be said for it: It falls behind the ordinary bicycle in no essential particular, and possesses some points of superiority over it, viewed as a bicycle pure and simple. It may be natural to suppose that certain faults and shortcomings would develop, but an extended test of the machine makes it plain that this is a mistake.

"I have been riding a bicycle for a dozen years or more, beginning with the old high wheel; and for nearly a year I have been using a coaster-brake machine, which possesses a few of the advantages of the motor bicycle; and I say without the slightest hesitation that, taken as a bicycle alone, the latter is not one whit behind the man-driven machine, while the motor simply takes away the grounds of complaint of the former and makes it a machine that will appeal with the greatest force to all users.

"How does the machine handle, and especially on slippery roads? Even better than an ordinary bicycle. It steers better, in the first place; I suppose this is due to the fact that the feet are stationary and do not have a tendency to deflect the front wheel from a straight line. In crossing car tracks or other obstructions there is danger of slipping unless they are taken at the right angle, just as there is with the regulation machine; but it is not any greater than in the latter case.

"A little more care is required in mounting and dismounting, of course, but even here there is no trouble to speak of. Even when walking and trundling the machine the difference is not so great as would be supposed. If the machine balances properly, as it should, it will maintain its equilibrium as long as it is kept upright. Anything more than this could hardly be asked of it.

"How about vibration, heat, smell and noise? None of them are sufficiently noticeable to the rider to be objectionable. In fact, they make a much greater impression on spectators than on the rider. The latter gets on the machine and starts off, giving not a thought to such things. The heat should be felt, apparently, but it isn't. Whether this is owing to its being dissipated by the rapid progress of the machine I can't say, but it is not improbable.

"The noise and smell are likewise troubles

that are more imaginary than real. Whether it is the fact of being in motion that robs them of their unpleasantness I don't know; but it is certain that they bother me very little. The noise is an accompaniment that I like, for it tells me that the motor is working right, and I give no further thought to it. The smell could well be dispensed with, for it has no soothing effect; but, as I said before, it does not bother me.

"Now, to come to the greatest theoretical objection to the motor bicycle—the matter of vibration. I don't know so much about other makes, but with ours we have got the vibration question just where we want it. In fact, there isn't any vibration to speak of, and any one who tries one of our machines and expects to find it is going to be disappointed. With the chain, as used on our first machines, I will admit that there was plenty of vibration.

"It was largely for that reason that the chain was discarded and the belt put in its place. We saw that it would not do. The rider would have been shaken to pieces, and the machine, too, for the matter of that. We tried the belt and it worked like a charm; so we knew we were all right there, and beyond the perfection of some details it will remain as it is on the first machine. No, the question of vibration is not bothering us at all.

"In fact, from an experience based upon an exhaustive test of the machine, extending over a number of weeks, during which I covered three or four hundred miles of all kinds of riding, I have no hesitation in saying that we are pretty well satisfied with the machine." And Robbins's face wore a very satisfied look in support of this declaration.

It may be remarked, incidentally, that the Waltham people are not giving any time to worry about either the practical working of the motor bicycle or its sale once it is placed on the market. Their chief anxiety is to get it out and to place themselves in a position where they can cope with their rapidly accumulating orders.

There is an immensity of work connected with the getting out of the dies for the numerous parts required, and nothing but weeks of hard work will enable them to make deliveries as expected—about October 1. It is to this end that they are laboring, and even if they succeeded in anticipating that date they would not be any too soon for the public.

The latter have heard much of the motor bicycle, and are prepared to plump for it on account of its comparative cheapness, light weight, ease of storage and general handiness.

Has Fallen Into Disuse.

When, some half dozen years ago, the practice was started of using bicycle crates as advertising boards, the idea was hailed as a happy one.

From plain black lettering an advance was soon made to colors and designs of various kinds, usually working in a fac-simile of the name of the machine for which the crates were designed. Even after the machines were delivered and the crates broken up, the usefulness of the advertisement was not at an end. Enterprising dealers saved the boards and distributed them along the country roads in every direction, usually adding their own names and addresses in small letters, thereby informing all passers-by that Blank bicycles were sold by John Jones or Henry Smith.

The practice is still followed in some quarters, but not to anything like the extent that it was formerly. It is one of the many methods of advertising themselves that both maker and dealer have let fall into disuse.

MOTOCYCLE MATTERS

Some News, Comment and Helpful Criticism from "Dear Old London."

London, Sept. 1.—We are now nearing the end of the active cycling season and, therefore, the close of that period of the year when motocycling is enjoyable, or, indeed, possible. Reflection upon the advance in the popularity of motorcycles during the past summer shows that the sport has gained many adherents, and that it has a great future, although it has been handicapped by somewhat limited outputs and by heavy prices.

The methods resorted to in the direction of improvements have also had much to do with the fact that the numerical numbers of motocyclists has not increased to quite the extent which might have been the case. The fitting of high powered motors to tricycles in order to attain more speed has tended to increase the price of such machines, and so has necessarily limited the demand. Not only has this been the case in the sale of these very high powered and high priced motors, but the fact that such machines have been placed upon the market has deterred buyers, because we have been told that the lower powered motors are no good; hence there has been rather a glut of low powered cycles.

The change from tube to electric ignition as a standard has also thrown a number of the former machines upon the market at very low prices, while the failure of certain companies to pay dividends and the not infrequent selling of bankrupt stocks, has also affected the demand for the newer types. For instance, quite lately there were a considerable number of new $1\frac{3}{4}$ h. p. tricycles, fitted with genuine De Dion motors, offered at \$125 each, and then there was a difficulty in disposing of them. Yet these machines were real bargains, and the few people who purchased them and converted them to electric ignition, have sold them at double the price named. I fancy that next year we shall see rather a reaction in favor of motors of not more than $2\frac{1}{4}$ h. p., which are quite powerful enough for ordinary uses.

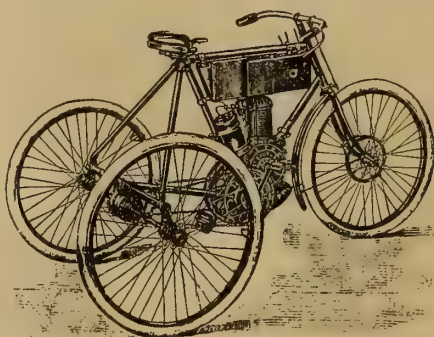
It will, however, be very difficult to maintain prices at the present rate, because already some of the cutters are at work, although I must say that they have a far more legitimate task before them than was offered by the cycle trade. At present the prices asked by the motor companies for component parts to replace breakdowns is truly dreadful. Recently a friend of mine who was touring upon a motor tricycle, had the misfortune to break the stem of the exhaust valve, and thereupon wired to a motor company to send him a new valve. This was done, although it subsequently transpired that the valve was a second hand one which had seen some service. Nevertheless the price was \$3. Wishing to put in a new one on his return to town, my friend went to another company and was quoted \$2. This was better and he closed with the deal. Then he happened to go to Messrs. Gamage, Limited, the well-known cycle accessory firm, and was surprised to find a department opened for motors and parts thereof. He inquired the price of a valve, and was quoted \$1. Surely there must be something wrong when firms within half a mile of each other quote \$3, \$2 and \$1 for the same article by the same maker!

But the public interest in motorcycles is increasing daily, and there will be a great many buyers next spring, especially if the

prices asked are more reasonable. I rather fancy that this will be the case, as several firms are talking of putting on the market reliable motor tricycles at \$250, at which sum there will be a ready sale. People who are hesitating are rather disinclined to pay high prices for articles which they look upon more or less as experiments, and are yet in the experimental stage. It often costs a good deal to maintain a motor in condition, and when one pays as much for it, or nearly so, as for a small car, one begins to count the cost. Moreover, it is surprising what constructional blunders are to be found on even the high grade motorcycles.

New Design From Nurembourg.

Although its weight is not stated, what is claimed to be the lightest motor tricycle on the market is the one shown by the accompanying illustration. It is the product of a Nurembourg (Germany) concern, and, as will be noted, the feature of the machine is the location of the motor, it being placed not behind the rear axle, as usual, but within the main frame; in fact, it is so built as to be part and parcel of the frame.



The engine itself is of the vertical, air cooled, single cylinder type, and develops 2 h. p. The illustration shows it to be fitted with the ordinary electric ignition, but in some of the machines a magneto-electrical device is used to generate the electric spark. The sparking can be varied by means of a lever on the handle bar to the extent that the engine can be made to run at a maximum speed or one-fourth or one-half of the same. In the driving mechanism a small spur wheel on the motor shaft is in gear with a large pinion mounted on a sleeve on the bottom bracket spindle; combined with this pinion is a chain wheel geared by a chain to a small sprocket on the main rear axle. The pedals are connected with the latter by separate sprockets and chain, a free wheel clutch being provided at the bottom bracket. The combined gasoline tank and carburettor is carried on the top bar of the frame, and is claimed to be reliable in its operation.

I saw a motor quad the other day which was one of the best grade machines made by one of the firms holding the highest reputation. The price of the machine was about \$560, and yet in less than a week the axle broke, owing to it being fitted into the sleeve upon which the balance was mounted by means of the end being simply squared, and that, too, with a sharp shoulder from the round portion. Needless to say, the square portion snapped off short, and the unfortunate owner was stranded for a couple of days until a new half axle could be procured. Yet this accident, if such it could be called, was due solely to defective design, which would hardly be expected in the case of a firm which had had a great deal of experience in the manufacture of cycles for many years past.

But so long as accidents of this kind occur to new motors, so long will the reflect-

ing public look on at the motor enthusiast, and, while envying him to a certain extent, yet wait patiently to profit by his experience in the end. This means that the trade will not develop to such an extent or so rapidly as it might otherwise do. A motor will always be liable to wearing and consequent breakdowns of valves and kindred parts, but a broken axle should never happen, except in the case of a collision or some similar accident.

There is also another point which troubles the would-be purchaser a good deal, and that is the tire question, which is indeed a very serious one. Even with the comparatively light weight motor tricycles, pneumatic tires are a very costly item, and, moreover, the motocyclist cannot well adopt solid tires, which is an alternative open to the user of a car. The vibration of a motor tricycle over rough roads is so great that pneumatic tires are positively necessary, and what is wanted is a pattern which will wear reasonably long and shall not be quite so costly as those now fitted. The rise in rubber is all against any great reduction in the price of tires, even were the market thrown open by the lapsing of the patents now held.

There is another great objection to the motor tricycle as at present made, which objection is felt by motorists themselves and is magnified still more by the public. This is the noise which is made by the gearing. This is far worse than the beat of the motor itself, which is often practically silent. But the whirring and chattering of the toothed gearing used is terribly irritating, and so far no definite attempt seems to have been made to overcome what is without doubt a grave defect.

A friend of mine is now experimenting with a fibre wheel on the motor shaft and finds it a success. The noise is very much lessened, but the question arises as to how long the fibre will last. If it will only stand without the teeth tearing off I think it will be as lasting as the steel wheels generally used, judging from the fact that a pair of fibre chain wheels on my own car have run over two thousand miles and do not show much signs of wear. But with chain wheels the teeth are so much larger that there is much less liability for them to tear off. But in any case, something must be done to stop the noise or there will certainly be more trouble with the anti-motorists. One motorcycle makes a great row, and when we have hundreds of them the noise will be unbearable. Its silence is one of the greatest charms of the bicycle, and we must endeavor to quiet our motors as much as possible. If toothed gearing will not do it, then we must try something else.

A tricycle which seems likely to become a serious opponent of the De Dion is the Phoebus Aster, and upon the latest patterns it is curious to note that a large surface carburetor is employed. This is similar to the pattern fitted to the Benz cars, and it certainly does not add the appearance of a tricycle. Still, it is said to act extremely well, and to give no trouble. Some of the tricycles lately made have had two motors in order to attain the large amount of power necessary for record breaking, but I fancy that we shall soon come to the end of things in this direction, because cost will be a serious consideration, and in addition to this, buyers will appreciate that in order to beat a record it is only necessary to increase the power of the motor, whereas such is impossible where ordinary priced machines are concerned. Hence the record will lose its power as an advertisement even more quickly than it did in the case of cycling.

WHAT INDIA WANTS

Its Chief Importer Points out Some Faults and Virtues of our Bicycles.

Cycle agents in India are not numerous and of the few, Vatcha Bros., of Bombay, are easily the best known and most prominent. They have handled not only American, but English and German goods as well, for a number of years and are generally reckoned desirable customers. It follows that their views are entitled to the respectful heed. One of the brothers was recently in London, and while there gave voice to opinions that are worth digestion.

While he criticised some features of the American bicycles, he also pointed out respects in which he considered them superior to all others. One of the chief points in their favor, strange to say, he found to be the use of round instead of D-shaped tubing. The round tubes, he said, stood up where D-shaped gave way. That being so, he urges a return to the round tube, or, at any rate, to the oval one, in machines built for the Indian markets. Mr. Vatcha was also opposed to extremely narrow treads, which he found caused rocking of the bracket with consequent dissolution, and this was another point wherein he found the American machine superior, and it is also interesting to note that he preferred machines made without the horizontal top tube, that is to say, he would rather the top tube were raised forward a little.

In the matter of plating, Mr. Vatcha was particularly strong. Plating was, especially with American manufacturers, badly scamped. With the machines of the Singer, Premier and Raleigh firms very little complaint had to be made, but with the great majority of other machines he had handled, more especially with the American makes, it was not uncommon to find the plating thoroughly rusted upon arrival. All plating for India should not only be heavy, but also upon a copper base.

On the question of weight, it was interesting to learn that the fully equipped English machine was several pounds lighter than American machines of similar quality and equipment. Thus he finds the G. and J. machines when fully equipped for the road weigh no less than 42 lbs., as against 36 lbs. for a similarly equipped English machine of corresponding type, and it was the same with the majority of American makes, although the idea of the American bicycle being lighter than the English, which was circulated at the time of the featherweight boom, still appears to hold good in many minds.

He found, he said, in his experience that many of the best American makes, which at one time gave him the utmost satisfaction, had fallen off tremendously in quality at the same time as the price was reduced, and in this matter of price he was willing to admit that the English makers were, as a rule, considerably out of it, although experience showed that their productions outlasted the cheaper machines of other countries, of which he gave several amusing instances.

One particular trait of the German traders was their readiness to adapt themselves to the requirements of their customers, and he urged the English maker to be equally adaptable. In one case Mr. Vatcha was quoted as ridiculously low price for bells by a German traveller. He said that the bells were not of the right shape, but if he could supply a bell of the same design as those of an English firm with whom he dealt, he could do with them. The traveller readily consented

to do this, and an order for several gross was placed. The bells duly arrived and were indistinguishable at sight from the English model. They were at once sent out, whereupon they commenced the next day to come back again broken, and after a constant succession of returns in this way, he withdrew the whole of the consignment from the market and returned them to the manufacturer. Had the quality been right that manufacturer would have kept his connection.

Single tube tires are, in Mr. Vatcha's estimation, no good for the Indian markets, nor is it necessary that high resilience, in the cheaper makes at any rate, should be secured, reliability rather than resiliency being the point aimed at. No type will stand the Indian climate which is not vulcanised together, and for Indian work Mr. Vatcha finds Clinchers stand best.

In regard to ladies' machines, he pointed out that the ladies in India ride with exceedingly light draperies, which were very readily cut and damaged by projecting parts of the machine, the chain adjustment at the back, which frequently projected very considerably, being a frequent cause of annoy-

MORGAN & WRIGHT TIRES

ARE GOOD TIRES

DEALERS AND REPAIR-
MEN WILL FIND MANY
NEW THINGS IN OUR
CATALOGUE AND PRICE
LIST

MORGAN & WRIGHT
CHICAGO

New York Branch, 214-216 West 47th St.
Boston Branch, 80 Battery March St.
Rear Fort Hill Square.

ance in this respect, and he suggested that makers should not overlook this point in designing and fitting up their machines for the Indian markets.

Finally, he requested that manufacturers be on their guard against the receipt of forged orders, and he suggested that they should be particularly careful to note the methods adopted by their regular customers in sending orders. Quite recently two machines were ordered in the name of his firm by some one entirely unknown, and the machines were promptly supplied. In this case Messrs. Vatcha Bros., knowing the quality of the machines, retained them, although they had not ordered them, but in another case, where half a dozen machines of a less satisfactory quality had been ordered in their name by means of a forged order, they refused to take them in. His explanation for the reason for this practice is that goods sent out to India and refused by the consignee, after lying in the care of the customs authorities for some months, are put up for sale and are usually knocked down at very low prices. He had little doubt but that the senders of these forged orders took care to be on the spot when these sales came off.

WHAT THOMAS MAKES

Will Furnish Motocycle Parts to all—Has Complete Machine of His Own.

For distinctly intelligent progress in motorcycle construction the E. R. Thomas Motor Company, of Buffalo, N. Y., is certainly entitled to rank among the foremost in this country at the present time. E. R. Thomas, it will be remembered, was the managing partner of H. A. Lozier in Canada, and brings to the new industry the ripe experience of a progressive but thoroughly conservative man, for Mr. Thomas is, above all things, a "safe" man, and embarks in the motorcycle business only after thoroughly studying the whole situation, and after he had become thoroughly convinced of the possibilities of the smaller type of motor driven vehicles.

The business of the concern will be thoroughly comprehensive, embracing not only its complete line of "Autocrat" motor bicycles, motor tricycles and motor quadricycles, but a full line of fittings and accessories, special attention being paid to supplying the wants of bicycle manufacturers who wish to supply to their trade a line of motorcycles, but do not feel justified in going to the expense of equipping their plant with the large number of special dies and machinery necessary for the work.

A BICYCLING WORLD representative was privileged to be the first outsider to catch a glimpse of the new motor bicycle, the principal patents of which have just been allowed, and include, as Mr. Thomas believes, a basic patent of great value. "Understandable" is a term that describes the machine as well as anything, and what this means will be appreciated by those who have seen the average attempt at motor bicycle construction. The Autocrat looks more like the average conception of what that kind of machine ought to be. The motor is hung on a patented truss construction, directly back of the front wheel, and below the frame angle proper, the power being transmitted to the rear wheel by means of belts and pulley, provision being made for the take-up of the belt.

The motor itself impressed one as being unusually simple, neat and compact; the $2\frac{1}{4}$ h. p. weighs but fifty-five pounds. The batteries and carburetter are hung within the frame, as usual, but many of the connections are concealed from view, and the machine does not appear to be cluttered up in any way. The wheel base is lengthened a trifle, and the whole frame is very strongly constructed. Mr. Thomas believes, above everything else, in reserve strength, and attains this end without any unnecessary weight.

The most striking features of the whole machine, aside from the motor itself, are the front forks, which are in reality two pairs of forks, joined at the head, thus making what is practically an unbreakable front. The frame lines will be made in several designs, one of which provides for the emergency of the motor being disabled, in which case the rider can uncouple the engine, so to speak, and pedal home.

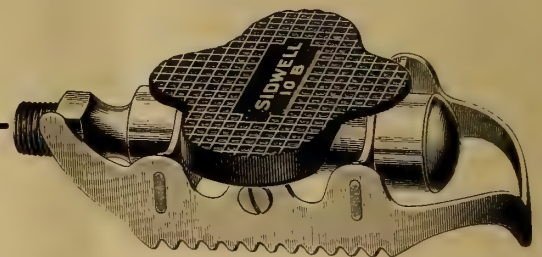
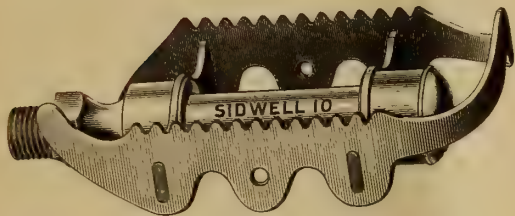
The motor tricycle shows a striking advance in detailed construction, although the general appearance of the machine does not differ from those now in use. The same is true of the quadricycle, which is, of course, an interchangeable machine with the tricycle. All the fittings that are to be supplied to the trade are made so that the angles correspond to the standard bicycles now in use.

SIDWELL AND BENNETT PEDALS

Manufactured By

THE BAY STATE STAMPING CO.,

Selesroom 170 Summer Street, BOSTON, MASS.

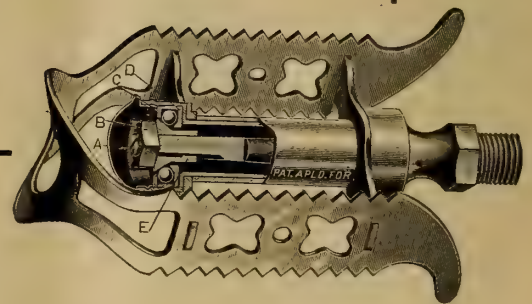
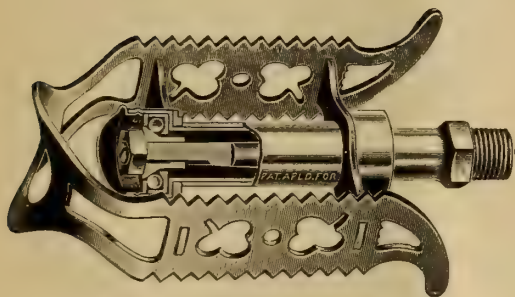


In the SIDWELL No. 10 and 10-B, you recognize old friends.

The No. 10 is a pedal suitable for road work on low drop bicycles.

The No. 10-B was designed to afford the rider opportunity to change from rat-trap to rubber by thinking about it.

THE RUBBER MATS REST THE FEET.



RECORD SUPPLY COMPANY, - - 170 SUMMER STREET,

BOSTON, MASS.

CHANCE FOR MOTOCYCLES

Metropolitan Meet That Affords Opportunities and Should Attract a Crowd.

In addition to the usual horse racing, trotting, bicycle racing and the exhibits to be given at the Tri-State Fair, to be held at the North Hudson Park, Guttenburg N. J. (just opposite New York), September 18 to 22, a pretentious programme of events for motorcycles and automobiles has been included, which will be carried out on the first day, September 18.

The events are as follows:

Event No. 1—Grand parade, in which all vehicles entered for exhibit and competition will take part. Distance one circuit or more of half-mile track. Silver cup awarded to the vehicle making the finest appearance in parade. A special prize to the best decorated vehicle in parade.

Event No. 2—Two-wheel vehicles, bicycles, tandems, etc. Distance five miles. Four must start. Purse \$175, cash or plate. Divided, \$100 to first, \$50 to second and \$25 to third.

Event No. 3—Three-wheel vehicles, tri-cycles, etc. No assistance from pedals except in starting. Distance five miles. Four must start. Purse \$175, cash or plate. Divided, \$100 to first, \$50 to second, \$25 to third.

Event No. 4—Electric vehicles, four wheels, to carry two. Distance ten miles. Purse \$175, cash or plate. Divided, \$100 to first, \$50 to second, \$25 to third. Four must start.

Event No. 5—Gasolene vehicles over 1,000 pounds weight, four wheels, to carry two. Distance ten miles. Purse \$175, cash or plate. Divided, \$100 to first, \$50 to second, \$25 to third. Four must start.

Event No. 6—Gasolene vehicles less than 1,000 pounds weight, four wheels, must carry two passengers. Distance ten miles. Purse \$175, cash or plate. Divided, \$100 to first, \$50 to second, \$25 to third.

Event No. 7—Steam vehicles, four wheels, to carry two passengers. Distance ten miles. Purse \$175, cash or plate. Divided, \$100 to first, \$50 to second, \$25 to third. Four must start.

Event No. 8—Ten-mile open championship. Open to only first and second prize winners in Classes 4, 5, 6 and 7. Prize \$150, cash or plate.

Brake manipulation test—Open to all vehicles to determine brake efficiency. Competitors have a rolling start and stop at given signal. First prize, solid gold die medal valued at \$50.

Event No. 10—Obstacle race, open to all vehicles, excepting bicycles and tandems, and without pedal assistance, to determine manageability and tractability of vehicle. Each contestant shall endeavor to pass between the obstacles without displacing any, and the competitor who accomplishes this in the quickest time shall be declared the winner. Distance 100 yards. To be arranged for by officials of meet, according to their judgment and selection. First prize, solid gold medal valued at \$50.

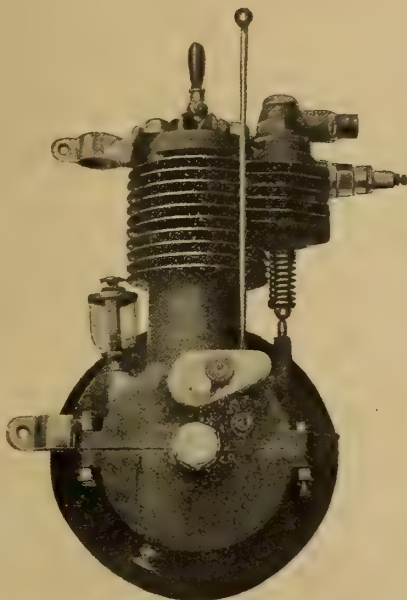
On the North Hudson Park there are two tracks, one-half mile and one mile. The half-mile is twenty feet wide and banked for bicycle races. The one-mile track is seventy feet wide, oval shape, while the stretch on the mile track is fully one-third of a mile long. In case there are too many entries to run off the event in one heat, trial heats will be run and the winner and second man in each heat will compete in the final. A complete charging plant has been

installed, so that no electric vehicle will want for power.

Entries will be accepted up to Saturday next by P. T. Powers, St. Paul Building, New York City, who is managing the affair. * * *

Designed by a Marquis.

Italy is seldom reckoned a factor in the cycle trade, but it has, nevertheless, given a few ideas that have attracted attention. One of these is the bicycle motor shown by the accompanying illustration. It is the design of a Marquis, too—Marquis Carcano—and is being marketed by the Agenzia Internazionale Automobilistica, of Milan.



The motor is one of the lightest made, weighing, with its battery, carburetter, etc., only thirty pounds. It is of the air cooled, electrically ignited type, and has an external flywheel, a small pulley being fixed on the opposite end of the crank shaft. The bicycle, to which it is affixed, is driven by a belt engaging this pulley and a light rim attached to the side of the rear wheel, as in the case of the Orient motor bicycle.

Footpaths for Pedestrians.

That the footpath is intended for the use of pedestrians alone is the opinion of Presiding Justice Adams, of the Appellate Division of the Fourth Department of New York State, who has set aside an award of a lower court in the case of Minnie Morrison against the city of Syracuse.

It seems that the right to ride a wheel on the sidewalks of some streets in Syracuse may be acquired by the payment of a small fee. The plaintiff while in the enjoyment of this right was thrown from her wheel and her arm was broken. The accident was caused by a depression of four inches in the middle of a plank sidewalk four feet wide.

There was a verdict of \$500 against the city, which the Appellate Division has set aside, because it is "firmly of the opinion that the plaintiff, in the circumstances of the case, would have escaped injury if she had been on foot."

"I note with pleasure the appearance of the first New York edition of the THE BICYCLING WORLD AND MOTOCYCLE REVIEW. It is a very creditable paper, and there is no reason, in my opinion, why it should not be a permanent success."—The Hartford Rubber Works Company, Lewis D. Parker, President.

SPRINGS VERSUS CUSHIONS

How the Latter Suffers From the Shortcomings of the Former.

"Give a dog a bad name and it will stick to him," says the adage, and it would not be easy to find a case where it is more applicable than to the spring frame.

Because the early spring frame machines were crude and clumsy and complicated, and many of them based on entirely wrong principles, and, above all, because they failed, for reasons not justly to be set against them, to properly perform the task allotted them, to opinion was formed that they were delusions and snares. So the trade and public became almost a unit in casting terms of opprobrium at them, and ever since they have been a by-word.

Consequently the task of rehabilitating them was a formidable one. It was beset with more difficulties than would have been the case if it were an entirely new idea. It had to live down its past bad reputation before it could even obtain a hearing.

It made little difference that the new spring frame machine was not a spring frame; that it was not called a spring frame, and that every effort was made to sink the spring frame a thousand fathoms beneath the sea as far as recollection of it went. Riders were either incredulous or suspicious, and nothing but a long course of education could eradicate from their minds the belief that spring frames were all alike and all bad.

Consequently exceedingly slow progress was made in bringing the new cushion frame to the front. In fact, it seemed at times as if it never would get there. People would examine it, and remark that it had good features; but they invariably wound up by saying that spring frames had had their day, and it was futile to endeavor to revive them. This particular one might be better than the others; in fact, it did appear to be; but it was impossible to prevent the public from classifying it with its predecessors of unsavory memory.

But it was one of those happy occasions when genuine merit won out, notwithstanding the heavy odds against it. The victory is all the more creditable by reason of its being won in spite of the disinclination to change, which has strengthened as the years went by. The maker, who some few seasons ago would have welcomed a novelty of any kind, now considers very long and very seriously before he can make up his mind to try this one. This, too, in spite of the fact that there is an undoubted and a growing demand for it.

As it is, progressive makers and dealers are the ones who take most naturally to the cushion frame machine. They find that it appeals to a class of trade that, although limited at present, wants something better than the ordinary machine, and, best of all, is willing to pay for it.

In a machine of this character this desire is gratified, and the happy customer goes around telling his friends of his good fortune. He is, therefore, a rare good investment.

Malden Does Not Mourn.

MALDEN DOES NOT MOURN.

Dealers at Malden, one of the many suburban towns with which Boston is blessed, have no reason to complain of the season now coming to a close. According to "The Malden Mail," it has been "one of the most prosperous that the local dealers have ever enjoyed."

GUNPOWDER MOTORS

New Haven Mechanic Believes he has Made Them Practical for Vehicular Use.

To the long list of forces capable of generating power to propel vehicles is to be added another. All that is accomplished by steam, electricity, gasoline, compressed and liquid air, etc., is promised for the new power.

It is nothing more or less than the ordinary gun powder in general use all over the world. Experiments have been conducted with it, and are said to have been highly successful. Of course, it is designed to propel motor vehicles, they being the recipient of the attention of the majority of inventors at the present time. Having electricity, steam and gas before him as the favorite methods now in use, the inventor has been impelled to design a gun powder motor that would be superior to any of the three. He claims that he has succeeded.

The experimenter is Herbert E. Fielding, a mechanic, of New Haven, Conn. The power he utilizes is the explosion of minute charges of gun powder, fired in either end of a phosphor bronze cylinder, and is thus described:

These charges are very small, not much larger than what is needed for a .32-calibre cartridge. The rapid explosion, however, serves to create an enormous force, and at the same time a very economical source of power. An experiment with a ten pound can of the best Dupont powder furnished force estimated enough to push the vehicle 300 miles.

Fielding has been working quietly upon the model at his shop in Winchester avenue, and expects to be able to make a road trial in a short time. At present the motor is simply geared to a light business wagon, but an order has been given for a regular automobile body, which will be done in a couple of months.

The motor is exceedingly simple, the small charge of powder being fed into the cylinder by an ingenious device. The cylinder itself is jacketed in a tank of glycerine, which prevents undue heating.

The principal merit of the invention is the safety of the appliance, no other inventor having yet been able to use powder without the danger of an explosion in the magazine. In Mr. Fielding's motor the powder is fed in similar to a cartridge loading machine, and the powder being stored in a dozen steel shells, quite a distance apart and all opening downward, should there be an explosion of one or all of the shells, no possible harm could result, as the explosion is absolutely unconfined.

Several New York capitalists are taking an interest in the new motor, and should the machine demonstrate practically its merits as confidently expected by the inventor, there will be no lack of friends to place it upon the market at once.

WANTED: Cheap, but reliable and fully guaranteed wheel suitable for continental trade. Dunlop, steel or wooden rims only, brake with rubber shoe and mud guards. Send full particulars and illustration to P. DESPLAND & CO., LAUSANNE, SWITZERLAND.

July Poor In Exports.

Statistics of the July exports in no way vary the monotony; the figures for the month serve only to further the decline. Japan and the Philippines are the only countries that show increases over the corresponding month of the previous year. Cuba's monthly totals show how quickly that island was supplied.

For the seven months ending with July Japan is also the brightest spot, its increase amounting to almost 400 per cent. Of the decreases, that credited to France is the most noteworthy. Comparatively speaking, that country held up much better and much longer than either Germany or Great Britain, but the shrinkage of its trade is now of about the same ratio.

The figures in full follow:

	—July.—		—Seven months ending July.—	
	1899.	1900.	1899.	1900.
	Values.	Values.	Values.	Values.
United Kingdom.....	\$34,218	\$25,396	\$1,467,787	\$578,518
France	16,075	7,202	433,297	386,693
Germany	24,609	14,608	1,268,630	705,515
Other Europe.....	37,525	20,539	768,637	775,371
British North America.....	21,642	13,182	525,778	490,355
Central American States and Honduras	573	101	3,717	3,414
Mexico	3,839	1,878	41,899	29,740
Santo Domingo.....	170	1	577	298
Cuba	11,803	1,870	3,345	32,476
Porto Rico.....	111	—	1,206	1,598
Other West Indies and Bermuda....	5,289	3,387	44,639	40,408
Argentina	7,712	4,696	68,579	174,747
Brazil	2,664	931	68,441	19,498
Colombia	205	58	5,658	4,951
Other South America.....	7,786	2,394	28,919	34,545
China	4,031	1,914	12,658	13,082
East Indies (British).....	12,650	4,454	82,634	68,139
Hong-Kong	735	953	5,523	5,690
Japan	18,735	25,422	59,171	45,870
British Australasia.....	29,782	17,572	128,143	140,737
Hawaiian Islands.....	4,864	—	—	29,784
Philippine Islands.....	—	6,236	—	958
Other Asia and Oceania.....	5,534	3,919	48,854	27,718
Africa	14,844	9,657	101,432	123,674
Other countries.....	69	40	1,622	254
Total	\$264,965	\$166,410	\$5,171,146	\$3,734,033

As a Seasonable Sideline.

The Indiana Chain Co. of Indianapolis, whose bicycle watch fob is well known, have given it a political twist, so to speak; that is to say, the fob is made to include pictures of either Bryan or McKinley, the chain links being, as before, of the bicycle type. The Indiana people say that it is meeting with a ready sale, and as a seasonable sideline it should interest jobbers and dealers generally.

Strong on Long Cranks.

The New Rapid Cycle Co., the English apostles of high gears and long cranks, are doing some telling work in pushing the idea. Here, for instance, is one of their strokes: "We undertake to save 25 per cent of your power and add 50 per cent to your pleasure by the use of long cranks and high gears. We guarantee your winter riding through mud to be made as easy as summer riding on a short cranked machine. We will sell you a New Rapid on these conditions."

Part the Motor Plays.

As an example of how the "old order changes" there is the case of a Brooklyn (N. Y.) bicycle salesroom and riding academy, erected especially for that purpose a few years ago, which is now being changed into an establishment for the sale and rental of motor vehicles.

"Motocycles and How to Manage Them" The Good-man Company.

ALCOHOL POWER

Experiments That May Someday Make it Available for Motorcycle Use.

Although a seeming paradox, it is a fact that alcohol is both one of the cheapest and one of the most expensive liquids produced by man, the latter quality being brought about by taxation. Experiments in this field in Europe have shown that it can be produced at but a fraction of even its present cost, and the value of the discovery is dependent upon the finding of some method whereby it can be confined strictly to the

mechanical arts. Failing this, the various governments will have to step in and prevent the conversion of their peoples into nations of drunkards by taxing almost to the prohibitive point what would otherwise be almost as cheap as water.

Now comes a French engineer who advocates the use of alcohol for motor vehicles instead of gasoline, and motors are, it is said, being altered so as to consume the former. There is no fear of explosion with alcohol, and it has a great advantage in the matter of cost.

New Chainless Mechanism.

Engineers who are conversant with William's patent valveless engine, and the method by which he transforms reciprocating into rotary motion from the piston rod, will learn with interest that this talented inventor has adapted his substitute for the crank to the propulsion of a chainless bicycle, says the English Cyclist. Lay readers must not imagine, however, that the ordinary pedalling cranks are dispensed with. Mr. Williams's crank substitute is adapted in the above case to transmit the rotary motion of the transmission shaft to the driving wheel hub. It takes the place of the mitre bevel gear wheels, as used in the Acatène. What the effect of this unique method of drive may be we cannot say, until after the trial, but, so far as a spinning test goes, it appears to run very sweetly, adds The Cyclist.

HUMAN BONES

Were Said to be Used for Case Hardening
—Refutal Followed.

In the various processes of case hardening metal parts that have to stand a great deal of wear, bone dust is one of the most essential ingredients required.

The parts to be treated are embedded in a mass of this dust and subjected to various degrees of heat, after which they are allowed to cool. By deft manipulation on the part of the operator different kinds of bone dust can be made to produce various and beautiful colors. These colors depend to some extent on the kind of bone dust used.

At Elmira, N. Y., where, at the factory of the Eclipse Manufacturing Company, the Morrow coaster-brakes are produced, the case hardening of various parts of the device is one of the most important and interesting operations there performed. The striking blue effect of the brake rings, for instance, is produced by case hardening, and by that peculiarity alone—quite as much as by the enlarged half of the hub—the Morrow device can be told at a glance. The wearing qualities of the rings are also increased many times over by this process.

Large quantities of bone dust are used by all concerns doing much case hardening. There is one Connecticut firm which makes a specialty of supplying nice, clean, freshly ground bone dust, presumably using meat bones for the purpose. Other firms make their own bone dust, evidently finding it cheaper and more satisfactory to do so when they use large quantities of it. Among such concerns, evidently, is the Eclipse company.

Apparently, the supply of bone is not always equal to the demand. This fact last week gave rise to the report that one of the sources of supply laid under contribution by the Eclipse company was the graveyard of one of Elmira's reformatories, and the good people of that town were naturally very much exercised over the matter.

The bones were taken from the reformatory, so the story ran, by one Spiegel, who buys and sells bones as a regular business. By him they were turned over to the Eclipse company, by them to be ground into dust and finally to find their way into the case hardening pot. Of course, no one in Elmira had any objection to the case hardening that went on at the Eclipse factory, nor even to the grinding of bones on the premises for that purpose. But that the bones of human beings, even though the latter belonged to

the criminal or unruly classes, should be made use of, was quite another matter.

If the demand for bones was so great that they had to be dug out of graves it was not easy to tell where the matter would end. The supply at the reformatory would not last forever, and when it was exhausted it would be only natural to turn to other graveyards for a further supply. In such case no one's bones would long be safe, and the time would come when the practice would have to be stopped with a short turn. So immediate action was the thing necessary.

At the very threshold of the investigation that ensued, however, the whole fabric built up around the graveyard story fell to the ground. The tale was absurd on the face of it, and this was soon shown to the entire satisfaction of all concerned.

The single grain of truth in the story was that the bones came from the reformatory. But they were not the bones of human beings. Instead they were but the bones which entered the institution clothed with meat intended for the consumption of the inmates; in short, they were the bones of cattle, and used because they were cheap, easily procurable and well adapted for the purpose required of them. The Eclipse company had nothing to do with them beyond purchasing them from the junk dealer, Spiegel.

And thus was punctured what bid fair to be a good sized sensation.

Best None too Good.

As motor vehicles become more numerous the need of special lubricants becomes more pronounced. For the various parts requiring lubrication different qualities of oil and grease are required, and unless the maker prepares them with a view to the particular uses to which they will be put the result is frequently anything but satisfactory. The matter is aggravated by the ignorance of the majority of riders regarding the requirements of the parts requiring lubrication. They learn after a while, of course, but this process takes time, and in the meanwhile the machine is suffering from a lack of the proper oils.

No want ever arose that was not sooner or later supplied, however. Already there are lubricants on the market especially adapted for the use of automobilists and motocyclists, and their number is certain to be largely increased within the next year or two. One of those already in the field is A. L. Adams, of Wiltonville, Conn., who covers his trade on a motorcycle and points to the running of his machine as a proof of the excellence of his lubricants. His advice to motocyclists is to use the best lubricants that can possibly be procured, adding significantly that "the best is none too good."

1892

1901

(Oldest Pedal Manufacturers in America)

We are still doing
business at the old
stand and propose
continuing to do so
for sometime to come

Curtis Pedals

FOR

1901

Will maintain the
reputation they have
always had ♣ That's
the best we can say
for them ♣ ♣ ♣ ♣
We are now ready
to talk prices ♣ and
make contracts ♣ ♣
Are you? ♣ ♣ ♣

A SURE TEST:

Look in your tool-bag when buying a wheel.
If you see a



25c

"PERFECT"
OILER

you will know that it has cost the maker of the bicycle more than twice as much as the ordinary oil can. The probability is that such a maker is building wheels with regard to QUALITY rather than expense.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.

Reed & Curtis
Machine Screw Co.
WORCESTER, MASS.

The Retail Record.**CHANGES.**

Stillwater, N. Y.—A. J. Wood, sold out.
 Milford, Mass.—Charles Merwin, closed.
 Caledonia, Mich.—J. E. Kennedy, sold out.
 Hartford, Conn.—Ralph E. Page, No. 419
 Main street.

Syracuse, N. Y.—B. C. Algie, closed out
 business.

Almond, N. Y.—Mark Tenney, making al-
 terations and improvements.

Rochester, N. Y.—Jay D. Hussey, Main
 street, has built an addition.

Binghamton, N. Y.—Callahan & Douglas,
 No. 57 Court street, closing out bicycles.

NEW STORES.

Bay Shore, N. Y.—Hardy & Truax, re-
 pairing.

Provincetown, Mass.—Peter Rogers, re-
 pairing.

Bay City, Mich.—William R. Newcomb,
 Astor House Block, repairing.

MORTGAGES, ETC.

Detroit, Mich.—C. G. Bleasdale, gave bill
 of sale.

Joplin, Mo.—J. L. Coesir, chattel mort-
 gage released.

Waterbury, Conn.—Charles W. Messer,
 gave bill of sale.

Newton, Mass.—Charles L. Lynch, gave
 chattel mortgage.

Bayonne, N. J.—J. H. Livingstone, gave
 chattel mortgage.

New Bedford, Mass.—E. M. & M. E. Cun-
 ha, gave chattel mortgage.

FIRES.

Winnipeg, Man.—J. McLean, Portage
 avenue.

Port Huron, Mich.—Warren Buckner, loss
 \$50; no insurance.

BURGLARIES.

Buffalo, N. Y.—James McCrea, No. 1598
 Bailey avenue, store broken into and a lot
 of sundries and fittings stolen.

EMBARRASSMENTS.

Newark, N. J.—G. W. Condon, jr., judg-
 ment for \$24 filed.

New Brighton, Pa.—J. S. Ruth, applica-
 tion to force into bankruptcy.

Recent Incorporations.

Waltham, Mass.—The Waltham Motor Car-
 riage Company, with \$300,000 capital stock,
 \$500 paid in; to manufacture and deal in
 automobiles, bicycles and electric goods. The
 officers are: President, W. A. Ingraham, of
 Lowell, Mass.; treasurer, Robert B. Johnson,
 of Waltham, Mass.

Boston, Mass.—Boston Specialty Com-
 pany, with \$150,000 capital, to do a general
 tire inflator business. Incorporators—G. W.
 Wilson, R. W. Jackson, E. R. Metcalf, all
 of New York, and A. Metcalf and J. Abbott.

Niles, O.—Columbian-Morgan Handle Bar
 Co., with \$500 capital. Directors, Chas. W.
 Morgan, E. C. Brainard, W. H. Foster,
 Myron L. Arms and C. H. Kilburn.

Which is More Resilient?

Across the water a discussion has been
 started as to which tire is the more resil-
 ient, a large one or a small one. The mat-
 ter is epitomized in this fashion:

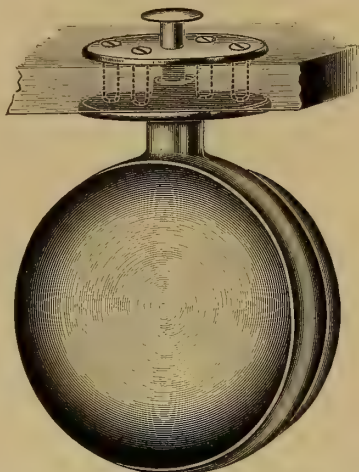
"The point in dispute is as to whether a
 small tire or a large tire possesses most of
 that quality which makers are aiming at
 and riders are longing for.

"I have heard the opinions of some that a
 large tire has more of the springing nature
 in it than a smaller one. Now, I believe they
 are wrong in their contention. I maintain that
 the opposite to resiliency is drag, and as a
 big tire is acknowledged to have more drag
 on the road than a small one it follows that
 the latter has the more resiliency."

Liberty Autobel.

The Liberty Bell Company, of Bristol,
 Conn., are bringing out a new bell for au-
 tomobiles which they call the Autobel, and
 which is shown by the accompanying illus-
 tration.

It is an electric chime bell, operated by foot



pressure. Both gongs revolve, serving the
 purpose of a balance wheel, and as they are
 attached to a loose axle or arbor, instead of
 being rigidly held, the best possible results
 are obtained. Secured to the axle are two
 hammers which strike the gongs alternately.
 As no set screws are necessary to hold the
 gongs in place, the appearance of the bell is
 not disfigured thereby. It is easy to operate,
 compact, durable, neat in appearance and
 musical in tone.

England's Effort to Hold Export Trade.

To meet the pressure of competition and to
 hold its export trade Great Britain schemes
 to overrun the world with expert commercial
 lecturers. The idea is being worked out by
 the National Lecture Society, whose secre-
 tary gives these details of the plan:

"Through these lectures we anticipate in-
 creasing British trade and spreading a better
 knowledge of articles manufactured in this
 country. We hope to travel around the
 world and in each centre where a com-
 mercial community exists to deliver an address
 upon British manufactures, under the aus-
 pices of the local chamber of commerce.

"The subjects will be classified according
 to the different trades; for instance, the larg-
 est makers of mining machinery in this coun-
 try wish to make known their superiority
 over makers in other parts of the world and
 to be recognized in mining districts of Amer-
 ica and Australia. So, on visiting these
 countries, our lecturer will give an address
 on mining machinery, and in this way place
 the two countries in touch with each other.
 We shall touch upon every line of manu-
 facturing interests of importance to Great
 Britain.

Boon to Farmers.

It is not the road motor vehicle alone that
 is receiving all the attention at the hands of
 the trade just now. The traction vehicle for
 farm work has made its appearance, and it
 is claimed for it that it will go just as far in
 the direction of revolutionizing farm work as
 will the motor-propelled vehicle used on the
 roads.

"Clark's Automobile Vehicle" is the name
 of the new aspirant for public favor, and it
 is manufactured by William G. Clark, 33
 Chester street, North Cambridge, Mass.
 Either steam or electric power can be used
 to propel it, and it may be constructed into
 any form of vehicle for the heaviest or the
 lightest uses.

The inventor says he has built these ve-
 hicles and taken them into the fields and
 plowed with from one to five plows at once,
 showing conclusively that the same power
 machines will transport products of the farm
 from field to market or elsewhere, and will
 do general freighting and expressing over the
 common roads; also parcel wagons for carry-
 ing out goods.

This type of vehicle, it is claimed, has su-
 perior means for climbing grades and for
 economy in drawing loads of merchandise
 over roads and inclines. It will thresh
 cereals, pump water for irrigating the crops
 and other uses, saw wood, also lumber by
 taking it (the steam motor) into the timber
 lot and with a portable saw mill manufac-
 ture lumber all winter; fuel and water cost-
 ing nothing, as all the waste may be used to
 generate the steam power to drive the saw.

Another advantage, with equal usefulness,
 is the ability to use it on the plantations in
 Cuba, Porto Rico and elsewhere for raising
 and manufacturing the beet and cane sugar.
 It greatly reduces the cost of production and
 no temporary rail is required to transport
 the raw material from the field, as the motor
 will haul it if necessary. The better the
 roads the cheaper its use.

Favors Motocyclists.

Owners and operators of motorcycles and
 other motor vehicles are interested in a de-
 cision rendered on Tuesday last by Magis-
 trate Olmsted in the Jefferson Market Court,
 New York.

The Magistrate decided that an operator
 of one of these vehicles which has less than
 ten horse power need not be a licensed en-
 gineer. This will admit the well-to-do driv-
 ers, who have been unable to operate their
 own vehicles owing to the fact that they
 were not licensed engineers and did not be-
 long to a labor union.

The case that caused the decision was
 that of Stanley D. Atkinson, who is em-
 ployed by John Wanamaker to sell au-
 tomobiles and instruct the purchasers in the
 operation of them. He was at Sixty-third
 street and Fifth avenue on August 30, when
 he was arrested by Bicycle Policeman G.
 H. Conneally, who is detailed to look out
 for offenders of Section 342 of the City Char-
 ter, which provides that no person except
 licensed engineers can use a steam boiler
 carrying over ten pounds of steam and ten
 horse-power.

Atkinson, it was charged by the policeman,
 had an automobile carrying 220 pounds of
 steam. Atkinson admitted that he had, but
 said that the vehicle had only six and one-
 half horse power.

Magistrate Olmsted then discharged him,
 deciding that the vehicle did not require a
 licensed engineer.

"Motocycles and How to Manage Them."
 The name explains the nature of the book.
 Price 75 cents. For sale by The Goodman
 Company. * * *

AUTOMOBILES
 WHAT ARE THEY AND
 WHAT WILL THEY DO ?
 In completely answered "without the use of technical language" and a reliable
 directory of makers of motor-vehicles and their parts is given in a special number of
THE MOTOR AGE
 THE AUTOMOBILE AUTHORITY OF AMERICA
 324 Dearborn Street CHICAGO

ACTIVITY IN EXPORTS

Some Big Shipments During the Week— Australia's Heavy Purchase.

British Australia this week took one of the largest shipments of cycle stuff that has left these shores in some time, its value reaching well over \$26,000. The week which closed Tuesday was, however, unusually satisfactory all around from the export standpoint. England was a heavy buyer, and Japan, Brazil, Denmark, New-Zealand, the Philippines and Holland all took purchases that reached into four figures. The record in detail follows:

Antwerp—2 cases bicycle material, \$30.
British East Indies—3 cases bicycles, \$72.
British Possessions in Africa—14 pgs. bicycle sundries, \$353; 12 crates bicycles, \$448.
British Guiana—1 crate bicycles, \$20; 2 cases bicycle material, \$162.
Brazil—5 crates bicycles, \$202; 3 cases tricycles, \$68; 2 cases cyclometers, \$325; 3 cases bicycle material, \$900.
British West Indies—10 pgs. bicycles, \$416; 4 cases bicycle material, \$119.
British Australia—172 cases bicycles, \$21,579; 40 cases velocipedes, \$1,217; 79 pgs. bicycle material, \$3,729.
Copenhagen—13 crates bicycles, \$600; 16 cases bicycle material, \$717.
Cuba—11 crates bicycle material, \$496; 2 crates bicycles, \$22; 2 cases velocipedes, \$30.
Chili—1 box velocipedes, \$16.
Danish West Indies—1 case bicycle material, \$36.
French Guiana—1 case bicycle material, \$49.
Glasgow—8 cases bicycles, \$120.
Gothenburg—1 crate bicycles, \$35.
Hayti—1 crate bicycles, \$23.
Hamburg—5 pgs. bicycles, \$185; 8 cases bicycle material, \$45.
Japan—236 crates bicycles, \$4,415.
Liverpool—7 cases bicycles, \$216; 1 pg. bicycle material, \$39.
London—8 crates bicycles, \$315; 16 cases bicycle material, \$695; 35 cases locomobiles, \$9,680.
Lausanne—21 crates bicycles, \$560; 1 case bicycle material, \$30.
Mexico—5 crates bicycles, \$120.
New Zealand—50 cases bicycles, \$1,934; 12 cases bicycle material, \$516.
Newfoundland—1 case bicycle material, \$17.
Porto Rico—2 pgs. bicycle material, \$41; 1 crate bicycles, \$21.
Philippines—81 pgs. bicycles, \$2,749.
Peru—1 case bicycles, \$20.
Rotterdam—92 pgs. bicycle material, \$1,860.
Southampton—4 crates bicycles, \$198; 19 cases bicycle material, \$3,910.
Siam—5 crates velocipedes, \$82.
United States of Colombia—2 packages bicycles, \$79; 1 case velocipedes, \$24.

One in Ohio.

On the application of the American Bicycle Co. Judge Bigger last week appointed Hiram Bronson receiver for the Ohio Cycle Co., 216 South High street, Columbus, O., H. A. McGinnis, proprietor. The receiver will be placed under \$5,000 bonds.

The petition asking for the appointment of a receiver recites that the defendant owes the plaintiff \$26.84 on a note of sixty days dated June 1, 1900, and that it has been duly presented to the Ohio National Bank for payment, which was refused.

The plaintiff further alleges that the defendant company is insolvent and asks for the appointment of a receiver.

Handle Bar Family Increased.

When the Sanger handle bar family makes its appearance for fall inspection its increase is certain to attract attention and cause remark.

The well known Sanger adjustable will remain the big brother of the family, but it will no longer be alone. There will be Sanger extensions, Sanger reversibles, stationary Sangers, each with any variation or



twist that the trade may require. The reversible is shown by the accompanying illustration.

The Sanger Handle Bar Company—to use their own language—mean to give the right thing at the right price, and they are now ready to talk business and show goods. In addition to their bars they will also supply



seatposts; one of their patterns is here shown.

The Sanger people, as ever, will stand behind their goods and protect all and any who may buy, sell or use them. Although it is not generally known that, like other handle bar makers, they ran afoul of the trust's Copeland patent, they acknowledged the corn and had about arranged to pay royalty when the A. B. C. suddenly applied the thumbcrews and broke off all negotiations. The Sanger genius at once got to work, and the result is a Sanger bar that their lawyers state the trust cannot touch with the Copeland patent or any other.

Sidwell in His New Role.

The new Record Supply Co., Boston, with Arthur Sidwell at the helm, makes its formal bow to the trade this week. Sidwell's line of campaign has been formulated, and his offerings—the Sidwell and Bennett pedals—need little introduction to the trade. The distinguishing features of the former, heretofore known as the Record, are retained practically unchanged. In both the rat-trap and rubber form they stand out clean cut and striking, and so well known are they that with the Bennett the simple announcement that they can be procured of the Record Supply Co. ought to be almost sufficient to achieve the desired purpose.

Signs of Saddle Unrest.

There are signs of unrest among saddle makers and users. It would not be surprising if radical changes in patterns should be made next season, although it is not easy to say what direction they would take.

Its Future Assured.

The future of the motor bicycle is now pretty well assured. The "funny papers" have taken it up. "Life" makes it the basis of a considerable cartoon.

LIGHTS AND SHADOWS

Why Some Businesses Have Fallen Off— Other Dealers Report Large Gains.

"We may as well face the music and admit that loss of enthusiasm has caused the decline of cycling," says the Knight Cycle Co., of St. Louis. "The older riders have quit and the new crop can't show as much love for the sport among one hundred of them as one good old-timer who was so permeated with it that it fairly oozed out of him.

"There are contributory causes, but they would soon be overcome with the aforesaid enthusiasm. We rush a sport hard and drop it as quickly in America. We want something new, and we are getting it in golf and the automobile and motorcycle.

"The wealthy like what the poor cannot afford, so the new sport becomes popular and the poor ape the wealthy, so the sport spreads. When it gets common the smart set leave it and the medium class do the same, till, as now, the bicycle does not occupy the position in our daily life that it merits merely as a conveyance. Of course its utility would be strengthened many fold by good streets and roads, but in this sparsely settled country, with such fine railroad systems, Utopian roads are strictly of the future. We think the solution is to take up the motor driven vehicle, and the few that remain in the bicycle business will then have enough left to keep them going."

"In our opinion the principal cause of the diminished sales this season is the fact that the well-to-do classes have lost interest in cycling," say E. P. Moriarity & Co., of Kansas City. "All of our local sales this season have been to people who use the wheel as a means of conveyance, and to boys. In former years we had a good trade among business and professional men. This season it is almost entirely missing. This has also affected our sundry and repair trade, as a large number of these business and professional men who have wheels do not ride them now.

"The motorcycle in its various forms will probably help out the dealer in this territory to some extent, but we fear that he cannot look for any considerable business in this line for two or three years to come."

"What is my opinion as to the probable cause or causes of the diminished sales of bicycles during the season just closing? I am very happy to state that I do not belong to that number," writes E. H. Crippen, of the Avery Cyclery, Los Angeles, Cal. "The sale of wheels with me in both wholesale and retail way in the State of California has been nearly double that of last year, with the best of prospects for the future."

"We have not experienced any diminution of sales during the past season," says the S. B. Bowman Cycle Company, of New York; "on the contrary, our business has been better this year than it has for some years past."

"Better classes have given up cycling and sameness of this year's models with those of the past"—these, in the opinion of W. C. Rands & Co., Detroit, are the causes that have served to lessen the season's sales.

It is not believed that the Keating company will resume after its affairs have been wound up.

The
First Cycling Journal
in America,
The Bicycling World
is
STILL THE FOREMOST.

Always Good, It Will Be Better Than Ever.

SUBSCRIBE NOW.

HERE'S THE BLANK.

THE GOODMAN COMPANY,

124 Tribune Building, New York.

Enclosed find \$2.00 for which enter my
subscription to the BICYCLING WORLD for
one year, commencing with the issue of.....

Name

Address.....

How to Secure German Trade.

There are three methods of securing German trade, writes Consul General Mason of Berlin, each of which has something to commend it.

These methods are through the medium (1) of a general importing house, or (2) of a special agency exclusively for handling American merchandise, or (3) a branch house of the exporter established abroad for that purpose.

It must be stated at the outset that a fourth method—the theoretical scheme usually adopted by the inexperienced American exporter, who imagines that German retailers or small wholesalers will order their goods by mail, pay for them f. o. b. New York, and import them by small lots to Germany at their own expense and trouble—is illusory and may as well be abandoned at the outset.

Returning to the three methods above indicated, the choice of either of them will depend upon various circumstances: the nature of the merchandise itself, whether a novelty or goods of standard utility and acceptance, whether it is likely to appeal to a large or only a small class of consumers, whether it is patented or not, and whether it can be best imported here in a complete and finished state or "knocked down" and requiring to be set up and finished after arrival.

The great successes have been made by exporters like the Singer Sewing Machine Company, the makers of cash registers, typewriters, graphophones and phonographs, and certain bicycle firms who have established in European countries their own branch houses and conducted their trade here by practically the same methods as at home. Others have succeeded—and this is particularly true of machinery, bicycles and patented articles—by giving their trade exclusively to large, well known and responsible foreign importing firms, who sell to the jobbing and retail trade by traveling salesmen and samples, and who have trade connections already established throughout the country in which they are located.

Above all, the exporter should decide in his own mind whether he really wants an export trade to Germany and is willing to undergo the expense and effort of obtaining it and maintaining it when acquired, even in face of good prices and an active market at home. If he only wants it as a temporary dumping place for shop worn or surplus stock during a period of dull home markets, the experiment had best be left untried.

The reputation of American bicycles in Germany, which was built up to the highest standard by a few first class makers, was ruined by the cheap, low grade wheels

gathered from bankrupt stocks in the United States and exported by brokers, who never expected to place another order in Germany.

Machinery on the Way.

C. J. Moore, manager of the Westfield division of the American Bicycle Company, returned to Westfield last week from Toledo, Ohio, where he has been for nearly a week arranging for the removal of the Toledo branch to Westfield. The task of removing such machinery as can be made available in the Westfield factory will be begun at once and the Toledo factory will be given up to the manufacture of automobiles.

Recent Patents.

673,382—Bicycle. George S. Bartlett, Boise, Idaho. Filed March 16, 1900. Serial No. 8,934. (No model.)

657,135. Parcel carrier for bicycles. John E. Rothaermel, Toronto, Canada. Filed January 10, 1900. Serial No. 966. (No model.)

657,431. Valve for pneumatic tires. Chancy J. Mead, New Windsor, Ill. Filed March 15, 1900. Serial No. 8, 785. (No model.)

No. 657,060—Valve attaching device for bicycle tires. Robert J. Burns, Avon, Mass., assignor by direct and mesne assignments of five-eighths to Leslie H. Hall, same place, and Frank C. Granger, Randolph, Mass.; filed December 5, 1899. Serial No. 739,230. (No model.)

Alcohol as a Motor Fuel.

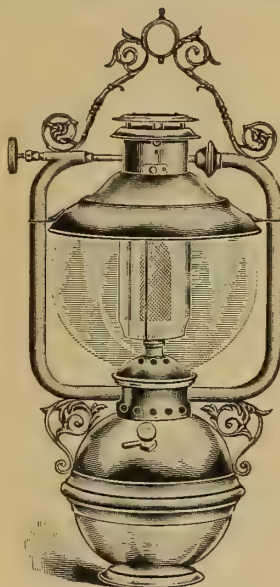
Consul General Guenther, at Frankfort, Germany, reports that a motor factory at Oberursel, near Frankfort, has been using alcohol as a fuel, with satisfactory results.

An exhibition was recently given, the alcohol being used to drive a 20 horse power automobile plow, and according to Mr. Guenther, "the alcohol plow is said to have performed its work fully as well as a steam plow operated simultaneously." The problem of using alcohol for power purposes has been solved, he says, by the motor factory in evaporating, denaturized alcohol of 90 degrees. The construction and operation of the motor is, after this gasification, the same as that of a gas motor. The machine uses about a pint of alcohol an hour for 1 horsepower, about 25 per cent lower than the operating expense of steam plows.

These efforts to find new liquid fuels for motor driven vehicles are of interest to motorcyclists, as to all others; it is one of the very many respects in which motorcycle development is possible.

In addition to their specialties and chainless fittings, the Riggs-Spencer Company, of Rochester, N. Y., have a coaster brake that is almost ready to see the light. It has some features all its own, too.

"Motocycles and How to Manage Them." The Goodman Co. Price 75 cents.



Indoor.

THE NULITE

750 CANDLE POWER

ARC ILLUMINATORS

Produce the finest artificial light in the world.
SUPERIOR TO ELECTRICITY OR GAS;
CHEAPER THAN KEROSENE OIL

A 20th Century Revolution in the Art of Lighting.

They darkness into daylight turn,
And air instead of money burn.

No Smoke. No Odor. No Noise. Absolutely Safe.

They are portable. Hang them anywhere.

WE ALSO MANUFACTURE

TABLE LAMPS, PENDANTS, WALL LAMPS,
CHANDELIERS, STREET LAMPS, ETC.

The BEST and only successful

Incandescent Vapor Gas Lamps

made. They sell at sight. Nothing like them.

A SNAP FOR BICYCLE DEALERS.

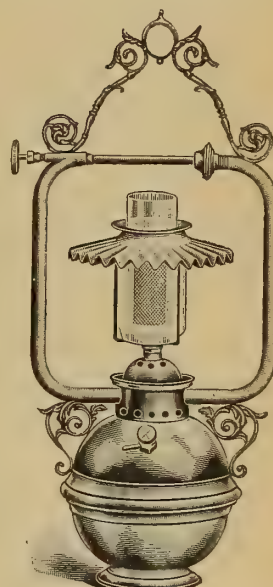
Agents wanted everywhere.

Write for catalogue and prices.

CHICAGO SOLAR LIGHT CO.,

56 FIFTH AVE.,

CHICAGO, ILL.



Outdoor.

**STEEL BALLS**

The Best in
the World.

EXCELSIOR MACHINE CO., BUFFALO, N. Y.

A GOOD ROAD TO CINCINNATI.

The Monon Route and C. H. & D. R'y run four trains daily from Chicago to Cincinnati. The day trains leave Dearborn Station, Chicago, at 8.30 a.m. and 11.45 a.m., and are equipped with elegant Parlor and Dining cars. The Night trains leaves at 8.30 p.m. and 2.45 a.m. These trains are equipped with elegant sleepers and compartment cars, the sleepers on the latter train being ready for occupancy at 9.30 p.m. All trains stop at 22d St., 47th St. and 63d St., Chicago.

Ask for tickets **via MONON and C. H. & D.**

**City Ticket Office, 232 S. Clark St.,
CHICAGO.**

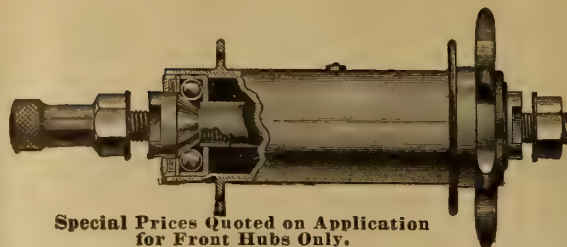
THE NEW CROWN.

1900



PATTERN.

WE WANT TO FIGURE WITH LARGE TRADE.

CHAS. E. MILLER, 99 Reade Street,
New York City Representative.Special Prices Quoted on Application
for Front Hubs Only.Manufacturers of BICYCLE CONES, CUPS,
AXLES, SCREWS, NUTS and SPECIAL DROP
FORGINGS to order. Write us, with samples, for
quotations. Nickel Plating to order.Discounts for Large Trade and Early Buyers.
Send for Circular, Samples and Prices.CORTLAND CARRIAGE GOODS CO.,
CORTLAND, N. Y.THE BICYCLE EQUIPMENT CO., 56 Fifth Avenue,
CHICAGO, ILL.,
Chicago and Milwaukee Representatives.

THE LAKE SHORE ROUTE

BETWEEN

Chicago and Milwaukee.

Frequent fast express trains at con-
venient hours.All agents sell tickets via this popu-
lar route.

CHICAGO & NORTHWESTERN R. R.

TICKET OFFICES:

368 Washington St., Boston.
461 Broadway, New York City.
193 Clark St., Chicago.The Best Advertising for the
Irish Trade isTHE
IRISH CYCLISTSpecimen copy and advertising rates on
application rates toR. J. MECREDY & SON, Ltd., Proprietors,
49 Middle Abbey St., DUBLIN.Through Train and Car Service in
effect April 29, 1900.

TWO FAST TRAINS

	"Chicago" Special Via Lake Shore.	"North Shore" Special Via Mich. Cen.
Lv. Boston	10.45 A.M.	2.00 P.M.
Due Albany	4.10 P.M.	7.35 "
" Syracuse	7.55 "	11.40 "
" Rochester	9.40 "	1.30 "
" Buffalo	11.40 "	
" Toledo	5.55 A.M.	
" Detroit		8.15 "
" Chicago	11.50 "	4.00 P.M.

The Finest Pullman Cars will be run on these trains
Tickets and accommodations in sleeping cars for sale at City
Office, 366 Washington Street and at South Station.

A. S. HANSON, General Passenger Agent.

GOOD WORK GUARANTEED.

D. PATTINSON,
rear 48 Stanhope St., Boston.
(Opposite former location.)EXPERT REPAIR WORK
OF ALL KINDS ON
BICYCLES AND AUTOMOBILES.
(Official L. A. W. Repair Shop.)

The Thorndike

Boylston St. and Park Square,

On the border of the most famous
Public Garden in America. BOSTON.

G. A. DAMON. J. L. DAMON. J. L. DAMON, Jr.

Via Rockford, Freeport, Dubuque, Independence,
Waterloo, Webster City, Fort Dodge, Rockwell
City, Denison and Council Bluffs.DOUBLE DAILY SERVICE
TO OMAHABuffet-library-smoking cars, sleeping cars,
free reclining chair cars, dining cars.
Tickets of agents of I. C. R. R. and connecting
lines. A. H. HANSON, G. P. A., Chicago.

FITCHBURG RAILROAD

New and Improved Service. Limited
Palace Trains betweenBOSTON, CHICAGO and
ST. LOUISAnd all points in the West, North and
Southwest.

SHORT LINE—FAST TIME—LOW RATES.

The most direct route with latest improved service and
fast trains between BOSTON and MONTREAL and all
Canadian points.For Tickets or further information call upon your
nearest ticket agent or addressA. S. CRANE,
General Traffic Manager.C. M. BURT,
General Passenger Agent

ASPHALT PAVEMENTS

THE STANDARD
PAVEMENT OF
AMERICA

THE BARBER ASPHALT PAVING CO.,

Endorsed by the L. A. W. Everywhere.

No. 11 Broadway, New York.

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLI

New York, U. S. A., September 20, 1900.

No. 25

THOSE THAT SURVIVE

A. B. C. Shake-down Complete, for a Season, at Least—What it will Operate.

Among other things, the American Bicycle Company has finally rearranged and definitely settled on the factories, sales departments and branch stores that will be continued and operated next season. The list, which is authentic, is as follows:

Sales departments—Columbia, in Hartford; Cleveland, in Westfield, and the Rambler, Crescent, Monarch and Featherstone in Chicago—6 in all.

Factories—Rambler, Crescent, Imperial, Featherstone and Monarch, in Chicago; Columbia, in Hartford; Tribune, in Erie; Crawford, in Hagerstown; Shelby, in Shelby; Waverley, in Indianapolis; also the Thompson parts factory and the steel plant in Chicago; the Smith parts factory, in Milwaukee; the ball and pedal factory, in Cleveland; the chain factory, in Indianapolis; the saddle factory, in Elyria, and bicycle factories in North Buffalo, Syracuse, Westfield, Toledo, Reading and Milwaukee—22 in all.

Branches—Columbia and Rambler, in Boston; Columbia, Monarch, Featherstone, Cleveland, Crescent and Rambler, in New York; Columbia, in Portland, Ore.; Columbia, in Providence; Columbia, Stearns and Cleveland, in San Francisco; Columbia and Rambler, in Washington; Denver, Col. (Gano Cycle Company); Featherstone, in Erie; Rambler, in Buffalo; Rambler, Cleveland and Crescent, in Chicago; Rambler and Cleveland, in Cleveland, Ohio; Rambler, in Cincinnati; Rambler and Cleveland, in Philadelphia; Crescent, in Atlanta, Ga.; Rambler, in Brooklyn, N. Y.; Rambler, in Detroit, Mich.; Cleveland, in Hamburg, Germany; also the London and Paris branches and the American Saddle Company office in Paris—33 in all.

Discontinuance Granted.

At Rochester, N. Y., last week, Justice Davy granted an order of discontinuance in the case of the Union Trust Company against the Morse-Keefer Cycle Supply Company, of Salisbury, Conn.

Garford out of the Saddle.

While still retaining the treasurership of the American Bicycle Company, A. L. Garford is no longer president of the American Saddle Company, one of its integral parts, and the one which was Mr. Garford's own before it was sold to and taken over by the bigger corporation. Mr. Garford's successor as the head of the saddle company is J. A. Carter, formerly president of the Geneva Cycle Company.

The change was made at the last meeting of the Board of Directors of the American Bicycle Company, and is said to have given rise to a most interesting situation. President Coleman, it is stated, called Mr. Garford to the chair and then offered the motion which brought about the change.

The cause for the shifting of officials is not known, but there are reasons for stating that it is merely a prelude to others that will not be long delayed.

Will Make Wire Wheels.

While it will not disturb their pedal business the Reed & Curtis Machine Screw Company, of Worcester, Mass., is going largely into the manufacture of suspension wheels for pneumatic-tired buggies. Mr. Curtis was the first man in Worcester to use a vehicle sort, and, their commercial possibilities impressing him, he made up a number of the wheels, but he was several years ahead of the time and the venture did not pay. Now, however, that the wire wheel's popularity is undoubted, he means to make up for lost time, and with the Reed & Curtis facilities he should have little trouble in doing so. It is possible, too, that the Reed & Curtis wheel will include a departure in the matter of rims.

Boston is Hard Hit.

Something in the nature of a trade cyclone has swept Boston. The Liberty branch closed late in August, and the Eclipse branch and THE BICYCLING WORLD removed to New York on September 1. Immediately following the Union, the Stearns and Crawford branches were discontinued, and on January 1 the Remington depot will be closed. Only the Iver Johnson, the Pierce, the Pope, the Rambler, the Eagle and the Fowler branches remain.

TO MAKE MOTOCYCLES

Two Concerns Consolidate for the Purpose—Have Motors and Machines Ready.

As a result of the amalgamation of the Carroll Chainless Manufacturing Company, of Philadelphia, and the Smith Motor Company, of Newark, N. J., more motorcycles are in sight.

The consolidation was recently quietly effected under the style The Oxford Manufacturing Company, which will have offices in Philadelphia and a factory in Oxford, Penn., which the Carroll people have been operating.

The company has been formed under West Virginia laws, with \$50,000, the organization being completed by the election of these officers: President, John W. Woodside; vice-president, W. C. Smith; treasurer, Robert G. Woodside; secretary, W. R. Darrah; factory manager, James M. Smith.

They will manufacture not only hydrocarbon motors and motorcycles, but other carriages propelled by motors. The manufacture of Carroll bicycles, chain and chainless, will also be continued.

One of the motorcycles, the Oxford tri-cycle, has already seen the light; it differs materially from the usual type, particularly in the matter of steering, which is done with a lever instead of the familiar handle bar.

Handle Bars for the Canadians.

Although its title is not given, Detroit papers report that a company of Detroit and Windsor men, with a capital stock of \$25,000, will manufacture handle bars for bicycles in Windsor, Canada. The officers of the company are James A. Straith, Windsor, president; E. W. Rider, Detroit, vice-president; O. K. Thompson, Detroit, treasurer, and S. B. Best, Windsor, secretary and manager.

Seatpost That Tilts.

Something new in seatposts will be included in the 1901 productions of the Ideal Plating Company, Boston—a post that may be tilted to any desired angle. It was shown to some of the trade this year, but it has since been further improved.

SAMPLES FOR SWITZERLAND

An Opportunity to try for Trade There on Favorable Terms.

"I take pleasure in informing the Department that a practical way of introducing American goods into Switzerland has at last been evolved, and will be carried into execution in the near future," writes Consul Lieberknecht, at Zurich, to the State Department. "The writing of letters, distribution of circulars, etc., is useless in foreign trade. An agent, understanding the business habits of the people and the kind of goods desired,

I should not succeed there will be little lost. However, taking the matter in hand as I am used to doing trade, I am sure that I can build up a business worth having. The name of the firm would be "First American Import House for Switzerland, Zurich"; general manager, William A. Steinmann. Naturally, it would have my personal guarantee and responsibility. I shall take the general agency for the whole of Switzerland of the most powerful and largest manufacturers (not merchants) in the United States; they must all be A1 firms, that can compete with any one in the United States, and they must agree not to enter into business relations with any other firm in Switzerland. They are to send me all the samples required

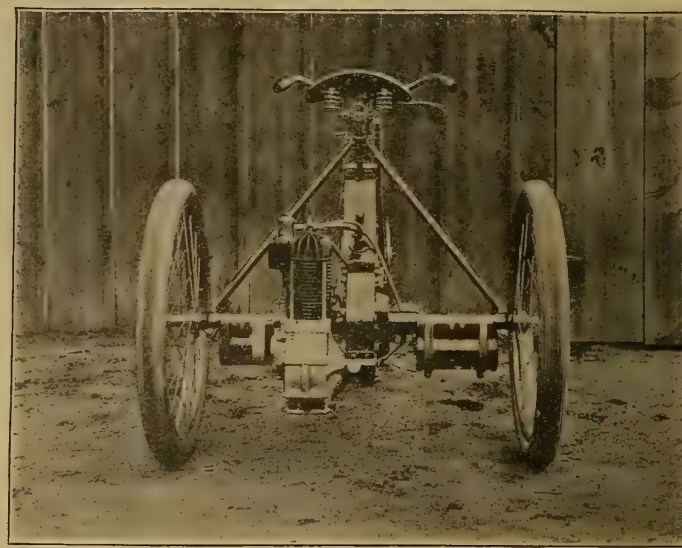
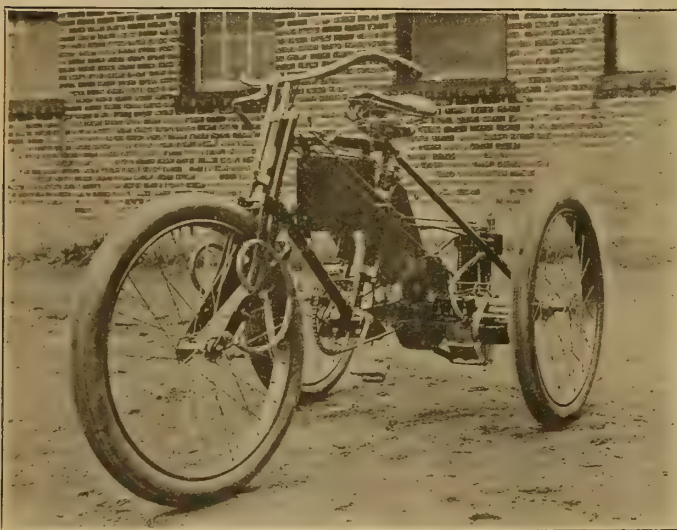
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to give a clear idea of their articles, free of charge and delivered to my store. I agree to open a large and fine exhibition of samples, to advertise them extensively, and to introduce the goods into our markets. My sales at the beginning would be on commission, and the manufacturers would have to ship their goods to the buyers with direct invoice, as the new firm will not take any responsibility for pay; but being a business man who knows the financial standing of almost everybody, and having 5,000 customers in my own business, loss is absolutely excluded. The firms that I represent as sole agent in Switzerland must accommodate themselves more or less to the customers prevailing in our country if they want to succeed, i. e., they will have to sell three or six months' time against draft. The great mistake American exporters make is that they always want to be paid cash. All European exporters to the United States give

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"The bicycle business has gone to hell," continued Mr. Jandorf in uncompromising yet pleasant tones. "The very bottom has dropped out of it, and the first of October will see me pretty clear of it, too. There is no money in it any more, even during the season; much less through the winter which is coming. So I am cleaning up things, and will be out of here before any considerable time has passed.

"It is bad enough for the rest of the trade," he went on, "but for the jobber there is nothing left but to get out. At the most he can only make a dollar a machine profit, and as it is no longer possible for him to get cash for his goods, and the end of the season comes and finds him still trying to collect his money from people who could not pay if they would, you can easily see what a fix he is in. I, for one, am sick and tired of it, and am going to leave it for others who like this kind of business.

"Can't we well for cash? No, we can't, and there's no use trying. We buy lots of machines, and have to sell them around to the dealers. They can't pay cash, and to do business with them at all we have to give them credit. The few who could discount their bills won't do so, because they can get all the credit from the Trust and other makers that they want. So, why should they pay us cash?

"No, the business is going to the department stores and the hardware stores. They will gobble all there is worth having, and leave the balance for the rest of the trade. With the former bicycles are a minor issue; they sell them on the side, and cut prices and do everything else that will bring them trade on the basis they want. Their ex-

penses are 'way down, and they can afford to do business—and make money—on a basis that would starve other concerns to death. So, how are the latter going to compete with them?

"I tell you, the bicycle business is dead. People are tired of riding bicycles. Their use is confined to workingmen, who use them to save carfare, and to countrymen who make their machines last for years, until they fall to pieces, in fact. How can you make any money out of them?

"Our customers want cheap machines—cheaper than we can sell them. We can buy them for a song, of course, but we can't get enough out of them from our customers to make it pay us. We were offered some machines the other day for \$5, stripped—about \$8.50 complete; good machines, too, such as would sell readily. It is awful to think of such prices. But that don't do us any good, for dealers expect to buy them from us for about \$8. Why, there's Siegel-Cooper; they are selling bicycles at retail for \$10, and what margin does that leave us?

"You can make up your mind to it that the jobber is out of it. He can't make a bare living any more. I haven't fifty machines in stock, and I am closing them out just as fast as I can. I am not going through the winter with this business on my hands," and there was a determined look on his face that showed that he meant it.

It was Jandorf, perhaps more than any other jobber, who introduced and carried to the greatest possible extreme the policy of price cutting. For years he was a power, both hated and feared by some sections of the trade, and welcomed by others. Whenever there was an unusual amount of cutting, wherever prices for spot cash ruled lowest, there Jandorf was to be found.

He made it his boast that he kept no books, gave no receipts and accepted no notes. His policy was cash on the nail, and the man who attempted to do business with him found that money talked. Big rolls of it were carried by the elder Jandorf and flashed in the eyes of customers. All this had its effect, for his operations were conducted on a falling market, and he had, in the vernacular, a "picnic." In short, the Jandorfs were swept in on top of the prosperity wave, and now that it has receded they find it a fitting time to make their exit.

It is an open secret, too, that other retirements are on the cards. Various concerns, some of them gilt edged, that have dealt in machines, parts and sundries "on the side" are about to acknowledge their belief that the bicycle business is on the down grade by withdrawing from it, either wholly or in part. Some of them will be regretted, others just the contrary.

Gives up Chase; Takes up Goodyear.

Daniels & Walsh, New York selling agents for Chase tires, have discontinued that account and taken up instead the Goodyear tires; the arrangement gives them considerable rich territory in this vicinity.

CHAINLESSES HIS SPECIALTY

**Connecticut's Clever Thief Who Dealt Only
in the High-Priced Models.**

It was no ordinary swindler that the police succeeded in running down at Hartford, Conn., last week. He was Frederick G. Chuttan, a bicycle thief, who has been operating extensively and with considerable success in Connecticut and Massachusetts, and the officials are congratulating themselves on their good fortune in locating him.

Chuttan's specialty was chainless bicycles. No other type was deemed worthy of his attention. If a machine had a chain it was safe as far as he was concerned. In the first place, chainless machines were worth more money, and in the second place—and here was the most cogent reason—Chuttan possessed a ready means of answering any unpleasant or searching questions that might be asked concerning them.

Whether it was a part of his scheme it is not easy to say; at any rate, his trump card was a receipted bill purporting to be from the Troy (N. Y.) Hardware Company for one Columbia chainless bicycle. This was shown to pawnbrokers or others through whom Chuttan attempted to realize on his ill gotten spoil, and, backed up by a plausible story, it seldom failed to convince them that everything was all right.

The police believe that Chuttan is implicated in the wholesale thefts of bicycles that have been going on for some time in Springfield, New Haven and Hartford.

Inspector Quilty, of the Springfield police force, went to Hartford last week, and identified Chuttan as being the man who stole three bicycles in Springfield. He says that Chuttan has made his living by stealing and selling wheels. The Hartford police hope to find the owner of the Columbia bicycle before Tuesday.

Chuttan claims to belong in Albany, N. Y. He is twenty-six years old, 5 feet 9 inches tall, and weighs 135 pounds. He is dark complexioned, has dark hair and mustache and thin face, and is of good address.

Says it has a Counter Claim.

At Syracuse, N. Y., last week, Fred P. Brand sued the Olive Wheel Company to recover \$88.54 as salary and money advanced. The defendant offered a judgment of \$60, which was declined.

The case was adjourned one week to allow Attorney Benedict time to prepare interrogations to be answered by witnesses in New Jersey, Pennsylvania and elsewhere in commissions. The defendant alleges that it has a counterclaim of over \$100.

Motor quadricycles are among the productions of the St. Louis (Mo.) Automobile and Supply Company. This concern, by the way, issues a forty-page catalogue devoted to goods in line with its title.

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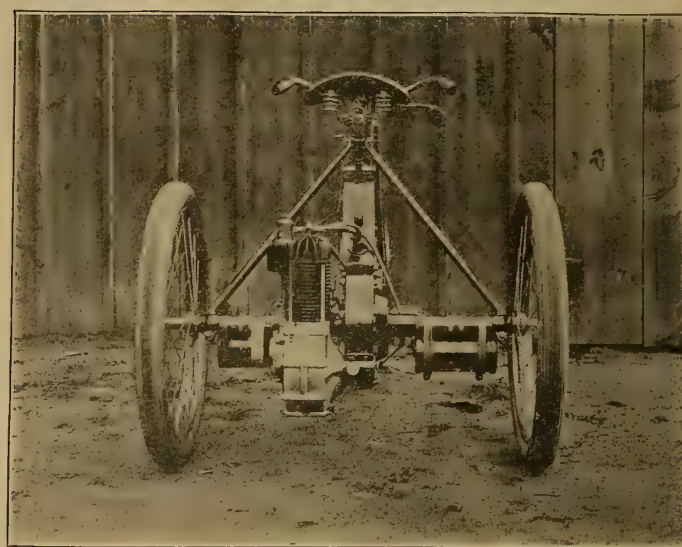
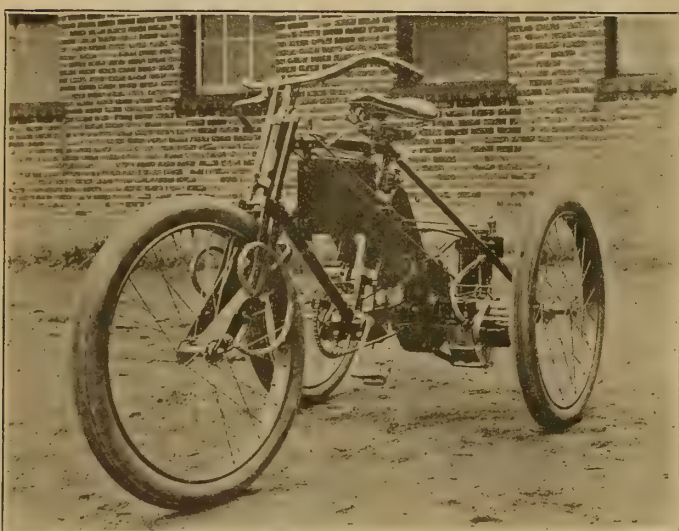
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Some little search had been necessary ere the erstwhile leader of the price cutting brigade could be located. Finally, a stripped bicycle, a sign setting forth that machines could be purchased for \$8 and upward, and a legend to the effect that this was Jandorf's, No. 10 Barclay street, made it plain that the search was at an end. Descending the steps—for it was in the basement—Mr. Jandorf was encountered, alert and decisive as of old, and with an inquiring look on his face. The scribe explained his errand—to obtain an opinion as to the outlook for the jobber next season, as well as a few words concerning the one just drawing to an end. This brought forth the remark concerning the frigidity of the weather recorded above.

"The bicycle business has gone to hell," continued Mr. Jandorf in uncompromising yet pleasant tones. "The very bottom has dropped out of it, and the first of October will see me pretty clear of it, too. There is no money in it any more, even during the season; much less through the winter which is coming. So I am cleaning up things, and will be out of here before any considerable time has passed.

"It is bad enough for the rest of the trade," he went on, "but for the jobber there is nothing left but to get out. At the most he can only make a dollar a machine profit, and as it is no longer possible for him to get cash for his goods, and the end of the season comes and finds him still trying to collect his money from people who could not pay if they would, you can easily see what a fix he is in. I, for one, am sick and tired of it, and am going to leave it for others who like this kind of business.

"Can't we well for cash? No, we can't, and there's no use trying. We buy lots of machines, and have to sell them around to the dealers. They can't pay cash, and to do business with them at all we have to give them credit. The few who could discount their bills won't do so, because they can get all the credit from the Trust and other makers that they want. So, why should they pay us cash?

"No, the business is going to the department stores and the hardware stores. They will gobble all there is worth having, and leave the balance for the rest of the trade. With the former bicycles are a minor issue; they sell them on the side, and cut prices and do everything else that will bring them trade on the basis they want. Their ex-

penses are 'way down, and they can afford to do business—and make money—on a basis that would starve other concerns to death. So, how are the latter going to compete with them?

"I tell you, the bicycle business is dead. People are tired of riding bicycles. Their use is confined to workingmen, who use them to save carfare, and to countrymen who make their machines last for years, until they fall to pieces, in fact. How can you make any money out of them?

"Our customers want cheap machines—cheaper than we can sell them. We can buy them for a song, of course, but we can't get enough out of them from our customers to make it pay us. We were offered some machines the other day for \$5, stripped—about \$8.50 complete; good machines, too, such as would sell readily. It is awful to think of such prices. But that don't do us any good, for dealers expect to buy them from us for about \$8. Why, there's Siegel-Cooper; they are selling bicycles at retail for \$10, and what margin does that leave us?

"You can make up your mind to it that the jobber is out of it. He can't make a bare living any more. I haven't fifty machines in stock, and I am closing them out just as fast as I can. I am not going through the winter with this business on my hands," and there was a determined look on his face that showed that he meant it.

It was Jandorf, perhaps more than any other jobber, who introduced and carried to the greatest possible extreme the policy of price cutting. For years he was a power, both hated and feared by some sections of the trade, and welcomed by others. Whenever there was an unusual amount of cutting, wherever prices for spot cash ruled lowest, there Jandorf was to be found.

He made it his boast that he kept no books, gave no receipts and accepted no notes. His policy was cash on the nail, and the man who attempted to do business with him found that money talked. Big rolls of it were carried by the elder Jandorf and flashed in the eyes of customers. All this had its effect, for his operations were conducted on a falling market, and he had, in the vernacular, a "picnic." In short, the Jandorfs were swept in on top of the prosperity wave, and now that it has receded they find it a fitting time to make their exit.

It is an open secret, too, that other retirements are on the cards. Various concerns, some of them gilt edged, that have dealt in machines, parts and sundries "on the side" are about to acknowledge their belief that the bicycle business is on the down grade by withdrawing from it, either wholly or in part. Some of them will be regretted, others just the contrary.

Gives up Chase; Takes up Goodyear.

Daniels & Walsh, New York selling agents for Chase tires, have discontinued that account and taken up instead the Goodyear tires; the arrangement gives them considerable rich territory in this vicinity.

CHAINLESSES HIS SPECIALTY

Connecticut's Clever Thief Who Dealt Only
in the High-Priced Models.

It was no ordinary swindler that the police succeeded in running down at Hartford, Conn., last week. He was Frederick G. Chuttan, a bicycle thief, who has been operating extensively and with considerable success in Connecticut and Massachusetts, and the officials are congratulating themselves on their good fortune in locating him.

Chuttan's specialty was chainless bicycles. No other type was deemed worthy of his attention. If a machine had a chain it was safe as far as he was concerned. In the first place, chainless machines were worth more money, and in the second place—and here was the most cogent reason—Chuttan possessed a ready means of answering any unpleasant or searching questions that might be asked concerning them.

Whether it was a part of his scheme it is not easy to say; at any rate, his trump card was a receipted bill purporting to be from the Troy (N. Y.) Hardware Company for one Columbia chainless bicycle. This was shown to pawnbrokers or others through whom Chuttan attempted to realize on his ill gotten spoil, and, backed up by a plausible story, it seldom failed to convince them that everything was all right.

The police believe that Chuttan is implicated in the wholesale thefts of bicycles that have been going on for some time in Springfield, New Haven and Hartford.

Inspector Quilty, of the Springfield police force, went to Hartford last week, and identified Chuttan as being the man who stole three bicycles in Springfield. He says that Chuttan has made his living by stealing and selling wheels. The Hartford police hope to find the owner of the Columbia bicycle before Tuesday.

Chuttan claims to belong in Albany, N. Y. He is twenty-six years old, 5 feet 9 inches tall, and weighs 135 pounds. He is dark complexioned, has dark hair and mustache and thin face, and is of good address.

Says it has a Counter Claim.

At Syracuse, N. Y., last week, Fred P. Brand sued the Olive Wheel Company to recover \$88.54 as salary and money advanced. The defendant offered a judgment of \$60, which was declined.

The case was adjourned one week to allow Attorney Benedict time to prepare interrogations to be answered by witnesses in New Jersey, Pennsylvania and elsewhere in commissions. The defendant alleges that it has a counterclaim of over \$100.

Motor quadricycles are among the productions of the St. Louis (Mo.) Automobile and Supply Company. This concern, by the way, issues a forty-page catalogue devoted to goods in line with its title.

Plea for the Motor Tricycle.

"I feel sure that if the average business man could only be brought to understand that in the motor tricycle he has within his reach a motor vehicle which will give him a considerable amount of genuine enjoyment in return for a limited amount of trouble and expense we should very soon see more motor tricycles in use," writes a motocyclist.

"I have heard many stupid arguments advanced by people who have had little or no experience, most of whom endeavor to prove that the motor tricycle is doomed, and that the 'voiturette,' or small motor carriage, is 'the thing.' While I must certainly agree that there is likely to be a big market for the 'voiturette,' I must maintain that a lot of solid pleasure and useful work can be got out of a good motor tricycle by any one who will take the trouble to understand it.

"Personally I have ridden many thousands of miles on a motor tricycle—in fact, I ride twenty miles to business every morning, and feel quite annoyed when extremely bad weather makes it necessary for me to use the train.

"Last week, desiring to join my family at the seaside, I took a little trip of over two hundred miles. I will not say too much about speed, for obvious reasons. Suffice it to say I got to my destination in less time than some of my friends who travelled by excursion train, and this without causing the slightest inconvenience to any one on the road.

"There must be some reason why motor tricycles are not more generally used, and it is more than probable that some little good might be done by discussion of the relative merits of the various motor vehicles for business men.

"In order to open the discussion I shall contend that for a man with moderate means who cannot afford to employ a skilled attendant the motor tricycle is the best investment."

Fast Time in Chicago.

Fast time characterized the first day's racing at Washington Park, Chicago, on Tuesday last, at the International Automobile Exhibit and Race Meet. All persons records for the mile were eclipsed, T. E. Griffin covering that distance on a steam machine in the remarkable time of 1:06. More than 4,000 people were present.

The ten-mile free-for-all race was won by Alexander Winton in 16:02 3-5, K. A. Skinner, on a tricycle, being second. One mile in this race was covered in 1:08. In the five-mile race for tricycles, Skinner defeated Champion, who led for more than half the distance, the time being 7:33 1/2.

The second day's races, scheduled for Wednesday, were postponed owing to the track being wet.

George E. Curtis is among the well known trade visitors in New York this week. It is his first trip as the selling agent for the Day Manufacturing Company.

Were Run in Classes.

Motocycles figured in but two events at the race meet run in connection with the opening of the Tri-State Fair at Guttenberg, N. J., on Tuesday last, the machines being divided into classes.

The five-mile race for four-wheeled gasoline vehicles carrying two passengers and weighing less than 1,000 pounds, was won by C. J. Field, of Brooklyn, on a quadracycle, with F. D. Craven, New York, second and J. Louvegue, Brooklyn, third; time 11:43 3-5. In the five-mile race for tricycles C. S. Henshaw won in 8:24 3-5, beating Louvegue and S. R. Atkinson.

About 8,000 spectators were in attendance.

Stearns Makes a Move.

It is stated that E. C. Stearns, as the head of the recently incorporated Stearns Automobile Company, capital \$1,000,000, has finally acquired both the Barnes and the Fontenac bicycle plants in Syracuse; he has also secured the American rights of the Anglo-American Rapid Vehicle Company, which recently petered out, the rights, including several types of motocycles.

Goodyear in Chicago.

The Goodyear Tire and Rubber Company have established a branch store and distributing depot at 152 Lake Street, Chicago. F. A. Hastings is in charge.

LEADING THE LEADERS

was ever one of the good habits of the Orient.

It once more showed this good trait at Charles River Park on Tuesday last when

HARRY D. ELKES



ORIENT LEADER

Paced by Orient-Aster Tandems
EASILY LED

Johnnie Nelson

across the tape in their one hour match race.

It was a good long lead, too.

If you would lead the leading dealers in your town, come our way. We have bicycles like Elkes rode and tandems such as paced him, likewise motor bicycles, motor tricycles, motor quads and automobiles, too—there's nothing wanting in the Orient line.

WALTHAM MANUFACTURING CO., WALTHAM, MASS.

THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is incorporated
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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, SEPTEMBER 20, 1900.

The Dealer of the Future.

If the latter elect to do business without profit or with little of it, he should have sufficient backbone and commercial horse sense to resist the temptation to go and do likewise; he should be farsighted enough to see that such methods, if persisted in, will simply force the offending rivals to shut up shop and leave him alone in his glory.

None in whom the instinct of self-preservation is well developed will act otherwise.

The day of reckless retailing is past.

It will be easy to "see the finish" of those who attempt it in the future, and, as we have stated, with the dealer everywhere bent on saving his own skin, the logic of affairs makes for a more satisfactory state of trade in the future.

With the retail trade acting on the principle of self-preservation, there should be less slackness and more commercial hard-headedness apparent than ever before.

In the past even those agents who may remain have been obliged to do many things

which they ought not to have done, and which, had the stress of competition been less severe, they, in all probability, would not have done. The keenness of competition was responsible for many ills.

The dealer cut prices to meet competition, he "threw in" lamps and bells because competition required it, he made long time sales and took big risks because his competitor did so.

But henceforth his policy must be one of self-preservation; and herein lies the augury of better business in the future.

If he would live he can afford to do none of the things catalogued.

The old order of giving anything and everything or doing anything and everything simply to keep a competitor from making a sale can no longer obtain.

Hereafter the dealer must, of necessity, pay more attention to himself and less to his rivals.

Worth the Experiment.

The coaster brake, says an observer of things cycular, has paved the way for the changeable gear.

In view of the prevailing reluctance of makers to exploit novelties, there is little doubt that this statement is too sweeping. Little or no talk is heard of changeable gears, although at least one make is acknowledged to be entirely practicable and simple, and if they cut any considerable figure in next year's trade it will be a matter of genuine surprise. If any makers have a card of this nature up their sleeves they are guarding the secret well.

Yet this neglect is due to no lack of merit in the article, nor, it is pretty safe to say, to any distaste for it on the part of the riding public. Its merit under certain circumstances is unquestionable, and there is little doubt that it would meet a reception second only to that falling to the lot of the coaster brake. It is largely because it is new to the average rider that it is not asked for or discussed.

The coaster brake has prepared riders for another step in the same direction, and as the changeable gear is the logical step, it may be said in this sense that one has paved the way for the other, even although no material result may accrue. In the latter case it would be an opportunity lost.

It is easy to understand the reluctance of the trade to take up a device like the changeable gear. It was once tried and given the go-by, and while a better fate might, and

probably would, result at this time, this is by no means certain, except in a limited number of cases. It is, therefore, no light undertaking.

Yet we are decidedly of the opinion that the opportunity should not be allowed to slip by entirely. A limited number of machines fitted with changeable gears could be sold, and at good prices, and it is by no means improbable that the demand would speedily assume considerable proportions.

But even if it did not, it would pay the few firms that made the venture. As with all other specialties, a high class of trade would be attracted, good prices would be realized, and the maker would be relieved from the tremendous competition that obtains in other quarters.

It is at least worth the experiment.

The Motorcycle Situation.

Our estimable contemporary, the "Cycle Age," asks learnedly and at length whether the trade is really ready for the motor bicycle, and whether it is wise that the interests of that type of cycle be advanced by the cycle trade press.

The "Age," we fear, overdraws its picture, but without going into extended criticism we may say that our Chicago friend makes the too common mistake of separating the motor bicycle from the other types of motorcycle.

What applies to one applies with equal, or almost equal, force to the other, but in an "aside" the "Age" excepts the motor tricycle, and says a good word for it; the exception, however, is unfair. If it is well to urge the interests of the motor tricycle, why is it not as well to urge the motor bicycle?

We grant that the one is better perfected than the other, but shall the advancement of one member of the family be at the expense of the other? Wherein is the wisdom of it?

But above and aside from all other considerations, the trade's interest in motorcycles is just this: While the established cycle manufacturers are "on the fence," so to speak, coming over it are numbers of new people who are embarking in motorcycle manufacture, or making of it a department of automobile manufacture.

While the newcomers are not unwelcome, it is part of our creed that the motorcycle business belongs to the cycle trade—that anything in the form of a cycle—bi, tri, quad or anything else to which a motor is fitted—is a logical development of the manumotive model of that particular machine.

When we employ the term "motorcycle" it

encompasses all these models, the tricycle no less than the bicycle; the quad no less than the tandem.

We would have the cycle trade make each and all of them, and the cycle dealer sell them. There is no reason why such highly desirable trade should escape them.

There is as much, if not more, room for the self-propelled bicycle and tricycle and every other form of cycle as there is for the self-propelled carriage, and if their manufacture is attracting new people it is well to point out the fact to the old friends and urge them on.

If the "Cycle Age" will but change its viewpoint a trifle, and disabuse itself of the too popular notion that "motocycles" means merely motor bicycles we are certain that it will have a better appreciation of the situation as it really exists.

Conservatism and Progressiveness.

No one will deny that cycling has fallen upon evil days. This assertion holds due whether applied to the trade or to the sport.

The wave of enthusiasm on which cycling rode for so many years has subsided, to a considerable degree at least. Riders no longer indulge in the pastime feverishly and with ardor; they no longer, as a whole, place it first and all other recreations, and even vocations, nowhere.

Yet it is because the wave rose so high that its partial subsidence is so noticeable and so noticed. It is but paying the penalty of greatness; once the cynosure of all eyes, standing out clear cut and distinct from other movements, cycling has become but one of them; and the comparison with its former greatness is drawn with unerring clearness because of that fact.

But it must be admitted by any one who gives the subject reflection that cycling has fared infinitely better than many other so-called "crazes." The complete ruin that was marked out for it by the prognostications of would-be readers of the future has failed utterly to eventuate.

The fate that overtook roller skating—to mention the sport that was most frequently likened to cycling—was swift and overwhelming. The pastime itself, and almost all recollection of it, was swept away almost in a day. Anything more complete could scarcely be imagined; it was as if some powerful hand had passed a gigantic sponge over the record and obliterated it for all time.

Only the slightest reflection is necessary to convince any one that cycling has met no such blow as this. Even its most bitter detractors will admit that bicycles are still sold and still ridden, and in quantities that a decade ago would have seemed enormous. Nor will the most pessimistic observer contend that there is any possibility of the bicycle disappearing from the face of the earth.

The truth of the matter is that cycling was overdone. During '95 and '96 its growth partook somewhat of a mushroom nature. Too many new riders made their debut, and they engaged in the sport with an enthusiasm born of a lack of both knowledge and discretion. It was inevitable that a reaction should come, yet when it did come surprise was expressed in many quarters.

Now that the bubble has been pricked, the mushroom growth disappeared into the night which gave it birth, there is time given for reflection and for cogitation.

The business still has proportions that would appear enormous in any other light than that of the last half dozen years. As a business vehicle, and, to a less extent, as one for pleasure, it still has its field and dominates it completely. The business has become a stable one, the great bulk of machines conforming to certain well understood specifications, and selling at prices that have reached bedrock at last. It is possible for a maker or a dealer to figure in advance very accurately his season's sales.

In short, the situation, bad enough when compared with the past, might be much worse. What is most urgently needed is conservatism in the matter of outputs and progressiveness in all other particulars.

Tire Troubles That Help.

One item, little suspected, is destined to help the motorcycle not a little in the race with the automobile—the item of tires.

Not only here but abroad the tire question, in the automobile world, is a veritable bugaboo and a most expensive one. All the skill and ingenuity that the tire trade holds has not yet been able to successfully combat the tire trouble. Every effort is centred to that end, but for all of that, and despite anything that may be said, the effort to develop a reliable and enduring tire for automobiles has been vain.

In time, of course, the result will be achieved, and several fortunes be made, but

the time has still to come. Meanwhile, the effort, expense and exasperation continue without stint. No tire has yet been found that will stand up for any length of time under the automobiles of 600 or 700 pounds weight or over.

By contrast, the motorcycle, in its several forms, is travelling a road of roses. Tire troubles are seldom if ever heard of, and cut little, if any, figure in its advancement. Although larger and heavier, motorcycle tires appear to stand up as well as under the lighter manumotive type of cycle. Their upkeep costs a mere bagatelle in comparison with the expense of maintaining automobile tires. It is no small advantage, and one that may be turned to excellent use in furthering the sale of motorcycles.

Some of the automobilists have already discovered these things for themselves. We know of one instance in which the automobilist sacrificed his high priced vehicle because of tire troubles, and without solicitation immediately paid more than \$600 for a motor quadricycle. How many more would do the same were the advantages of the motorcycle called to their attention is a pretty subject for speculation.

There are plenty of readers who have been feeling the effects of the unusually short season. Many of them, machinists and other less skilled artisans by trade, and repairers only for the nonce, are preparing to return to their former occupations, and it is likely that the cycle trade will see them no more. While some of them were undoubtedly desirable members of the trade, the majority were of a class of which it may be truly said "good riddance."

Three pages of "letters to the editor" on the long crank-high gear subject appear in one recent issue of an English contemporary, and at that the editor notes that lack of space requires the holding over of other letters of the sort. It serves to show the interest in the matter—interest, too, that makes for good. We need something of the sort to talk about over here.

When the biting blasts begin to blow there will be more to fall than the dying leaves. Decimation is too weak a term to correctly foretell the havoc that will be wrought on some cycle rows. All the more business left for those who remain, will be the comforting reflecting of some determined optimists.

CHAINLESS ALL RIGHT

Strong Reasons for Trade Support—Has Answered Every Criticism—What Eighteen Months Use Proved.

That the chainless bicycle has made headway admits of little dispute.

That it has not made more of it is the more surprising.

It is possible that the higher price asked for it has something to do with its slow growth.

It is more probable that the indifference and the damning with faint praise it has received from a portion of the trade is responsible for more of it.

It is a fairly safe assertion, however, that nine-tenths of those who have put the chainless to practical and extended use can find no other reason for its failure to multiply more numerous.

With the season of 1901 holding promise that the retail trade will be conducted on a saner basis, and with dealers making their effort on those models that will bring them the best returns, it is reasonable to assume that the chainless will loom larger in their considerations.

It certainly merits not only more attention from the retailer, but from the manufacturers themselves.

It is common property that the Buffalo maker who this season devoted himself chiefly to the cushion-chainless type accounted for one of the most satisfactory businesses of the year. That he made twice as much money as his competitors who turned out the same number of cheaper models is trade talk.

It is evidence of this nature that should bear heavily on the manufacturers generally.

From the standpoint of the rider—and his standpoint is largely the standpoint of the dealer—THE BICYCLING WORLD can bring a considerable fund of personal experience to bear.

For some eighteen months a member of its staff has used a chainless bicycle, and so far as the Leland & Faulconer bevel gears are concerned he is in position to bear witness that nothing he has used in his fifteen years' experience as a wheelman has given such all around satisfaction.

It is absolutely impossible to conceive anything in the form of a man-propelled bicycle of which more could be asked or expected.

This is strong language, but it is born of personal experience, and the wheel and gears richly deserve it.

They were used almost daily in a country with a wealth of hills and watering carts, and by one who is not given to sparing his mount or killing it with care.

It is drawing it mild to say that the wheel had the very minimum of care.

The accumulation of encrusted macadam mud that it carried at times would have dis-

abled the best chain-driven bicycle that was ever put together.

But, clean or mud encrusted though the frame might be, the gears were never affected.

They were ever the same—true, smooth and "sweetly running," as they say across the pond.

The wheel is still in use, and, if anything, it runs more "sweetly" than ever.

The gears have gone the entire eighteen months without hitch, skip, pinch, bend, bind, chatter, deflection, backlash or halt or falter of any kind.

Positively none of these or other mooted "evils of the chainless," or any suggestion or semblance of them, has developed.

In its year and a half of use the wheel has been adjusted exactly three times.

For several weeks the gears were damned because of an aggravating squeak that came and went and that was now loud and then low; for quite a while it could not be located, but at last it was found, and then not in the gears, but in the pedal.

This was the only suggestion of trouble or mischief, and eventually, as stated, the gears proved themselves not guilty.

This Leland & Faulconer geared bicycle also proved itself a glorious hill climber.

Although it had been ordered geared to 70 inches—the gear used on the rider's chain wheel—it arrived geared to 77, and for some little time the wheel was used in blissful ignorance of the fact, the difference in the "feel" being attributed to the longer cranks employed.

But, despite this increase of seven inches of gear and some five pounds in the weight of his wheel, the rider, although fairly strong on hills, never before climbed hills so easily or so well.

The positive thrust, the instantaneous action, the entire absence of whip or backlash all make for this; there is no loss of power; every thrust brings its equivalent.

In coasting this chainless has repeatedly, but not always, run away from chain-gear bicycles.

Summarized, it may be stated that the chainless represents as near an approach to perfection in cycle construction and of the bicycle principle as is likely to be attained by man.

It affords the maximum of results with the minimum of care, expense and attention.

Without disparagement of the chain-gear bicycle, it may be truthfully stated that the chainless has all of its virtues and in greater degree and more of its own and with few if any of the sins of omission and commission that go with chain gearing.

To THE BICYCLING WORLD man whose experience furnishes the basis of this article it seems that if the chainless has any fault it is from the selling standpoint; for certainly its increasing ease of running inclines the possessor to hold on to it; there is small desire for change or a new mount, so complete and lasting is the satisfaction.

The chainless is much like a shoe: the longer you use it, the better it feels.

It is only the motorcycle, with its suggestions of speed and progress without effort or perspiration, that seems a charmer calculated to woo one away.

But the motorcycle is not of to-day, nor very largely of next year. The trade cannot afford to overlook it; but meanwhile, and for the immediate future—for next season—the chainless has every claim to a greater share of its attention and energy than it has had in the past.

There is more money in it for the maker and more for the retailer, and this seems a pretty sound reason why it should be more generally taken up.

So much has been said for and against the chainless that THE BICYCLING WORLD, while urging its commercial advantages, has not been hasty in passing judgment on its intrinsic worth.

And it is not as the result of any technical experiments nor machine-made tests, but as the outcome of the ripened experience of a practical, everyday road rider, that the statements and opinions here made are recorded.

One Less in Los Angeles.

The Cleveland Cycle Co. of Los Angeles, one of the best-known and most active houses on the Pacific Coast, has retired from business. R. C. Lennie, senior member of the firm, goes on the road for the Lozier department of the A. B. C., while Joseph Ostendorf, his partner, goes to San Jose, to open a branch for Leavitt & Will, of San Francisco. The firm handled Cleverlands not only locally but in South California and Arizona; it was the trust's withdrawal of this territory that caused the break-up of the firm.

Here's All-Around Satisfaction.

To a note of congratulations to the BICYCLING WORLD on its recent moves, W. K. Thomas, of the Maine Cycle and Mfg. Co., adds a line that shows the rosiness of Racycle affairs.

"Our business this year is more than double what it was last," he says, "and our factory is still running—something unprecedented, as we generally shut down during the summer. The outlook for next season, too, is splendid."

For Cash Only.

An example that might be followed with much profit by their fellows in other places is set by certain dealers in Albuquerque, N. M. They have signed an agreement reading as follows:

"We, the undersigned, bicycle dealers of the city of Albuquerque, do hereby agree to repair and rent bicycle and all bicycle sundries for cash only on and after August 1, 1900.—Albuquerque Cycle and Arms Company, C. B. Hopping, H. Brockmeier, Will J. Scott, F. E. Robinson."

"Motocycles and How to Manage Them." The name explains the nature of the book. Price 75 cents. For sale by The Goodman Company.

MOTOCYCLES IN PARIS

Racing's Part in the Development—Changes Making, but Prices are Firm.

Paris, September 6.—The professional racing man has been a very useful auxiliary to the cycle manufacturer, and now that he is being drafted into the ranks of the motocyclists his scope of usefulness is being considerably widened, for he has become not only a racing man, but a sort of budding engineer.

As the motorcycle maker is obliged to keep a certain number of men to pilot his machines, he is inclined to give preference to the old professionals, and there are some scores of them now in this new branch of the industry, earning comfortable livings in the fitting shop and winning big prizes on the road and track. Others who have been brought up in the motorcycle trade have developed a talent for racing, and between the two the tricycle has undergone such a change through a process of selection and adaptation that it has become a very different instrument from what it was, say, a couple of years ago. At that time no one dreamed of using an air cooled motor on a tricycle developing more than two and one-quarter horse power. In fact, it was only just then that De Dion et Bouton had made a new departure by leaving the old one and three-quarter horse power motor and going to a higher power, and when buyers heard of this they supposed that the new machine might be all very well for the racing cyclist, but would hardly do for the plodding tourist who feared that the vibration would interfere with his own comfort and shake the machine to pieces. Nowadays the two and one-quarter horse power motor is accepted by every one, with a promise of its giving way to a still more powerful engine, and the racing cyclist does not think that he is properly equipped unless he has got a machine with a motor developing up to six horse power.

As a matter of fact, the force of the motor is merely limited by the difficulty of keeping it cool. The makers of the Aster motor showed what could be done by putting thin ribs of corrugated copper on the cylinder, by which means they were able to give a larger radiating surface, and this motor can be made up to three horse power and run constantly without any trouble. Other makers, like Romain, of Orleans, have tried to adapt four horse power motors, cooled partly by air circulation and partly by water jackets, but, as water cooling is entirely out of the question on motorcycles, the system does not seem to make much headway. A further

step in the direction of employing high powered motors was made when the Soncin engine was put on the market. This motor develops up to six horse power, and this seems to have been obtained simply by making the cylinder with a large bore and fitting it with big exhaust valves. Of course, the motor is heavy and consumes a good deal of spirit, and it is for this reason that it is only employed, as a rule, on racing tricycles and voituresses. This, no doubt, represents the limit at which air cooled motors can be built, for it is not easy to see how motors of higher power can be used without causing a lot of trouble. As it is, these racing motors will never give good results in the hands of an amateur, and only those who are thoroughly up to all the tricks of manipulation can do any good with a tricycle of this type.

Not only in the motor, but also in the form of the tricycle, there has been a great change of late. The professional has seen the advantage of diminishing the wind resistance, and so he crouches down on the machine as if he were lying along the top bar. The tricycle has thus had to be lengthened until it has got an abnormally long wheel base, and the dropped handle bar is made as narrow as possible, so that the rider can press his elbows against his sides. The petrol tank is a big cylinder, carrying five or six gallons of spirit, and, as the professional very often prefers to slip off the saddle and sit on the tank, it has to be braced up with strong tubes to prevent it giving way under his weight. Such a machine with a six horse power Soncin motor can be driven at a speed of fifty miles an hour. While, of course, everything is sacrificed to speed in the racing tricycle, very little change has taken place in the general arrangement of the tourist's machine, which is generally propelled by a De Dion, an Aster or a Buchet motor, this last named being of the De Dion type except that the gas mixture is exploded on the top of the cylinder instead of in a combustion chamber at the side. There are several other motors on the market, which I shall probably have occasion to deal with more fully from time to time, and I merely refer to them here in order to show that the buyer has a dozen or more good motors to select from now, whereas a couple of years ago there were not more than three or four on the market.

In speaking of the changes which have taken place in the motorcycle, it may be interesting to deal with the question of price, as a good many buyers seem to be under the impression that by waiting some time they may be able to get machines more cheaply than they can at present. All the cycle firms, with scarcely an exception, have gone into the industry, and production has increased so enormously that there would seem to be some grounds for believing in an early drop in prices. But if we compare the lists of makers with those issued at any time during the last two years we find that no change whatever has taken place, for it is impossible to get a new motor tricycle at less than

\$320, while a quadricycle is priced at a minimum of \$400. There are two reasons for this, one being that the cycle makers have to buy their motors from the manufacturers, and the other that the construction of the machines themselves has so far improved as to put any reduction in price out of the question. It is certain that even these prices would be higher than they are now if it were not for the policy of one of the leading manufacturers, who has been selling his machines at a relatively low price on a big output, and has thus compelled the other firms to fall into line. The big production has had the effect of putting any number of second hand machines on the market. With each improvement buyers get rid of their old machines, and will take anything that they can get for them, and it is easy to pick up a one and three-quarter horse power machine for \$120, and even less. Such a purchase, however, can hardly be recommended, as the cost of putting the thing straight would make it a better investment to buy a new machine outright.

Motocycle Rental Schedule.

Perhaps Kenneth A. Skinner, who established the original motorcycle store in Boston, was the only man in the country who carried a sufficient stock to justify a rental service. He, however, had some ten or twelve machines for the purpose, and did more business of the sort than is generally supposed, Harvard students being among his best patrons. For future use and for comparison with other scales, his printed schedule, as follows, is of interest:

Tricycles.	
First hour.....	\$1.00
Each additional hour or fraction.....	.75
One-half day.....	3.00
One day.....	5.00
One week.....	20.00
One month.....	50.00
With Quadricycle Attachment (Extra).	
First hour.....	\$.50
Each additional hour or fraction.....	.25
One-half day.....	1.50
One day.....	2.50
Sundays and holidays.....	5.00
One week.....	10.00
One month.....	20.00
Automobile Lessons.	
One-half hour.....	\$1.00
One hour road lesson accompanied by instructor on motorcycle.....	2.50

Bargain is Well Bound.

Another deposit was last week made by the Queen City Construction Company to bind the bargain made for the Worcester plant of the Worcester Cycle Manufacturing Company. The amount, \$2,500, was placed in the hands of Frank S. Smith, of New York, receiver of the Worcester Cycle Manufacturing Company. The receiver now holds \$12,500 and the Worcester Savings banks \$1,000 to bind the offer of \$25,000 for the plant of the works.

William Shrive, a Yonkers (N. Y.) assembler, deserves to go on record as a brave man. He has made up several bicycles fitted with parallel instead of ball bearings, and he expects to sell them, too.

MORE FAVORED NOW

"Trading in" no Longer Unqualifiedly Condemned—How to Help it.

It is characteristic of mankind to appreciate a good thing only when it is too late.

This remark is at least half way applicable to the attitude of the trade toward traded-in machines. When the custom of trading-in—evil or abuse were the terms usually bestowed on it—was in full swing the trade was almost a unit in condemning it. Now that it has shrunk to diminutive proportions there are not wanting signs that it is held in higher esteem than it ever was before.

The mistake was made of confounding the abuse of the trading-in system with the system itself. It was always contended by a few level-headed observers that it was the abuse, rather than the system, that should be thrown overboard. Events have done much to prove them right.

At the present time trading is indulged in only to a small extent. Even now, dealers would prefer to make a straight sale than to take a second-hand machine in part payment for the new one. But they welcome the latter class of trade with almost equal fervor.

The reason—or, rather, the reasons—are plain. Sales are unwontedly and unwelcome scarce on any basis; and trades of this character can now be made at a profit and with little or no risk. With this double reason, some dealers seek trades with an assiduity only second to their craving for the straight-out purchaser.

A reason frequently advanced for this comparative remissness on the part of the buying class is the small allowance made for the old machines. This, it is held, acts as a deterrent; riders traded before because they received a big allowance, and now that this is no longer obtainable they hold aloof. Only by returning to the old order of things could their attitude be changed.

There is just a grain of truth in this contention, and this alone enables it to hold water. Owners of machines costing them originally \$75, and even \$100, naturally feel reluctant to part with them for an allowance of \$5 or \$10, especially if, as is frequently the case, they are in good running order.

But even they—and such riders are in a minority—see the folly of expecting big allowances when they reflect upon present prices. If the new machine costs anywhere between \$25 and \$50, they pay less, even with a merely nominal allowance on the old machine, for the new one, net, than under the old régime. A little talk will convince them of this.

If this is not what keeps riders from changing—and it must be admitted that it is not—the interesting question is, what is it? Is it because they don't want to trade, or because it is not made worth their while to do

so? The truth will be found to lie between these two causes.

To be perfectly frank, there are many riders who would not change. Their interest in the sport is no longer the keen one that formerly marked it, and for the limited riding they do the old machine answers the purpose. It would be little short of impossible to tempt them to invest.

But there is another class that holds back for another reason. The lack of novelty is the cause of their inaction. Why should they change, they ask, when the new machine contains no new features? How would they be benefited by their expenditure? Failing to obtain any satisfactory answer to this question, they do nothing.

Change, novelty, new features—these would not put the business where it was a few years ago. But they would cause a marked improvement to take place, and the sooner this is realized the better it will be.

MORGAN & WRIGHT TIRES
ARE GOOD TIRES
 ONLY WAY TO CURE
 SOME LEAKY TIRES IS
 TO PUT INNER TUBES IN
 THEM, THUS MAKING
 THEM DOUBLE-TUBE TIRES
MORGAN & WRIGHT
 CHICAGO

NEW YORK BRANCH: 214-216 WEST 47th ST.
 BOSTON BRANCH: 80 BATTERY MARCH ST.,
 Near Fort Hill Square.

Development in Cones.

Nelson's adjustable cone is one of the smaller devices in which the trade should be interested, particularly the dealer and repair man. This cone is adjustable by means of a washer and nut which screws over the cone's body, and may be adjusted to fit any depth of a cup. The washer is made of soft steel so it may be turned or filed down to any size required, but it is not necessary to fit the washer inside of the cup, as it can run on the outside as well. The locknut locks the washer in place when properly adjusted. It seems a ready device for quickly and cheaply replacing broken or worn-out cones. It is made by the A. Nelson Manufacturing Company, Chicago.

Standard Rims and Tires.

It is worthy of note that the Orient motor bicycle is, in spite of its weight, fitted with wood rims and the regulation single-tube cemented tires, the latter being 1½ inches in diameter.

HE FINALLY SUES

Brought to Bay, Rackman Calkins Calls a Rome Bank Into Court.

For some weeks there has been a lull in the cycle rack litigation incited by E. S. Calkins, of Syracuse, alleged inventor of the universally used T rack. The exposure of the methods employed, and of the very slight foundation for the claim that the Calkins patents had been pronounced valid, had resulted in a cessation of the royalty payments, and matters were at a standstill.

Convinced that there was no longer anything to be gained by a continuance of this policy, and confronted with the necessity for either giving up his game of bluff or of taking some step to make it good, the latter plan appears to have been decided on by Calkins. At any rate, steps were taken last week to bring the matter to an issue and have the courts make a ruling on the validity of the patents. Of course, such action is a virtual confession that the judgment obtained over E. C. Stearns & Co. by default carries with it no binding force.

Rome, N. Y., was the town selected to make a test case, and the Farmers' National Bank was picked as the victim. On Saturday last Calkins, through his attorneys, Hay & Parsons, filed a complaint in the United States court at Utica against the Rome bank.

The complaint prays for a writ of injunction restraining the Farmers' National Bank from further using or selling bicycle racks resembling an inverted T, and also asks for damages for what has been done in the past by that concern detrimental to the business of Calkins.

The complainant claims to be the inventor of bicycle racks resembling an inverted T, and that he obtained a patent on the said velocipede support. He further states that the defendant, well knowing the premises and rights of the complainant, but contriving to injure him and deprive him of the benefits and advantages which might accrue to him from said invention, made, constructed, used, and vended to others to be used, velocipede supports employing and containing said design, and that it still continues to do so, and further threatens to do so in large quantities.

The complainant claims that the defendant received notices to discontinue, but disregarded all. The complaint prays for a writ of injunction restraining the defendant, its officers or agents, from further using or selling the racks, and requests that the stock which it now has on hand be destroyed. Calkins also asks the Court to determine the amount of damages he has suffered by the defendant's operations, and requests that the defendant be instructed to pay that amount to the complainant.

W. A. Neff, representing the Wyoma Coaster-Brake Company and the Reading Screw Company, is in New York this week.

INDIA RUBBER'S STRENGTH

Marvellous Growth of the Industry — Imports Nearly Double in Three Years.

While the average cyclist and cycle tradesman knows what an important part india rubber played in the development of the bicycle industry, and in making easier the ways of the world, few realize that more than \$100,000,000 worth of the material has been imported into the United States during the last four years, and more than \$60,000,000 worth in the last two years.

A decade ago the annual importations of india rubber amounted to about \$15,000,000; now they exceed \$30,000,000, and are steadily increasing. Practically all of the importations of rubber come in crude form for use of manufacturers, who are constantly extending its application to various new lines of industry. Northern Brazil, Southern Mexico, the West Indies, Central Africa, India, the Straits Settlements, and the Dutch East Indies supply this increasingly important feature of our importations. Probably no single article has made a more rapid growth in its relations to manufactures, and consequently commerce, in the last few years than rubber. As a consequence attention is now being given to the cultivation and systematic production of the various plants and trees from which it can be produced.

These statements are suggested by the receipt by the Treasury Bureau of Statistics of a publication detailing the systematic efforts being made for the cultivation of india rubber trees and plants in the British colonies, especially those of Central and South Africa. This, coupled with the well-known fact that our own Department of Agriculture has already begun experiments and inquiries in this line in the island territories of the United States, adds greatly to the interest in this question and to the possibility that the \$30,000,000 a year which we are now sending out of the country for this product may be expended under the American flag and among American producers. The fact that Southern Mexico and Central America are natural producers of india rubber in considerable and increasing quantities, and that large quantities are produced in and exported from the islands and mainland immediately adjacent to the Philippines suggests great possibilities in this line both in Cuba, Porto Rico and in the Hawaiian and Philippine Islands.

India rubber is not, as is generally supposed, the product of a single tree, but, on the contrary, is produced from a variety of trees and plants. Some of these flourish only in a moist soil and atmosphere, while others thrive on stony soil, provided they receive ample though intermittent rainfall; though in all cases a tropical or sub-tropical climate is requisite. Most of the india rubber of South and Central America and India is

from trees, but in the islands of the Indian archipelago, the supply of rubber is chiefly from a gigantic creeper, which in five years' growth attains a length of 200 feet and from 20 to 30 inches in circumference, and which yields annually from fifty to sixty pounds of caoutchouc. Java, Sumatra, Penang, Singapore and French Indo China are already large producers of crude india rubber, or caoutchouc, and its production in the West Indies has been sufficient to indicate the entire practicability of its being made an important industry in Cuba and Porto Rico, as well as in the Hawaiian, Philippine and Samoan Islands.

The following table shows the value of the importations of crude india rubber and gutta percha into the United States in each fiscal year from 1890 to 1900:

1890	.....	\$14,854,512
1891	.....	18,020,804
1892	.....	19,833,090
1893	.....	17,964,667
1894	.....	15,162,333
1895	.....	18,475,382
1896	.....	16,781,533
1897	.....	17,558,163
1898	.....	25,545,391
1899	.....	31,875,207
1900	.....	31,555,483

Possibilities of the Two Wheeler.

Amongst the great crowd of cyclists the future of a practical and efficient motor bicycle is a topic of everyday conversation, says Wheeling. First and foremost, the question of storage would be of small consideration, the narrowest doorway being easily accessible; then the cost of traction would be so much less in comparison with a tricycle, while the initial outlay on the machine would probably be found within the means of the majority.

Attempts have from time to time been made to produce motor bicycles, but in most instances the popular taste has not been captivated, and failure has resulted. One of the chief difficulties in the way of the motor bicycle is, of course, that of starting, but once the machine is running there is small difficulty, and the one track is all in its favor. That inventors are beginning to see the possibilities of a great future for motor bicycles is evident from the records at the Patent Office.

Enthusiasm Tells.

Unquestionably, some riders are better suited with long cranks and high gears than others. The rub is to find out just how it affects each individual, and this is only to be done by practical test. Extended use of the two types will alone qualify a rider to render an opinion that is worth anything. In this country, unfortunately, experiments with abnormal crank lengths is almost out of the question. Anything over eight inches can be procured only if made to order, and even then the rider would be handicapped owing to the fact that his machine is of the regulation type and not constructed to withstand the excessive strains put upon it by the long cranks and high gear.

CHAINLESS WITH LEVERS

Utica Inventor Utilizes Steam Engine Principles — Method of Operation.

Not content with the numerous forms of chainless bicycles now on the market, a Utica (N. Y.) man, Frank J. Wadman by name, has come forward with a new chainless gear for which all the familiar claims are made. While it dispenses entirely with the chain, it does not have recourse to any of the well-known forms of bevel or similar gearing. Instead, the steam engine is the type of motive power which is regarded as the most worthy of being imitated.

The new arrangement is one of the simplest and most convenient that can be imagined, says the description. The two cranks are fixed to the shaft as in an ordinary wheel, but there the similarity ends. In place of the rotary movement the pedals make a swing, which is about a third of a circle in its entirety. The crank on the right side of the frame, on which side the motive power is always applied, is attached to a small bit in a ball bearing joint. The other crank is attached by means of the shaft to another bit on the same side. To both of these bits are affixed piston rods, of light steel, which are fastened to a medium sized gear wheel, placed on the frame near the rear wheel.

The gear wheel is placed so that its teeth fit into the teeth of a smaller wheel attached to the hub of the rear wheel.

The principle involved is the same as that of the steam engine, in that it has two piston rods. The new part, however, is in the applying of the foot power, in place of steam. Depressing one of the cranks compels the bit attached to it to make an arc, and the piston accordingly is pulled forward. With the other bit the piston is pushed backward. Both the pistons are attached to the gear wheel in a socket joint. A complete back and forward movement of the pedal makes one complete revolution of the larger gear wheel.

There are eighty-three teeth on the large gear wheels of the models now in use, and twenty-eight on the smaller one. This gives a ratio of one-third; that is, the smaller wheel revolves three times to the larger's once. As the crank moves but one-third of a circle either way, and in the complete movement makes two-thirds of a movement, it can be seen that the two-thirds movement of the new contrivance equals the entire revolution of an ordinary 84-gear wheel.

For it are claimed lightness, durability and easy running. There is no dead centre whatever, and no power is lost. The pillar post of the wheel is placed more perpendicular than is commonly the case, placing the rider almost directly over his pedals and giving him additional leverage. No saddle which has to be straddled is necessary; in fact, Wadman has a special saddle, resembling the seat of a chair. This is especially for women. Long skirts can be worn by women without the least danger of tearing. The wheel, in comparison with the chain models, has a gear of 110, and at this extreme it is as easy to pump up a hill on it as on a 70-gear chain.

STUMBLED OVER STEERING

Shergold's Safety was Faulty in This Respect—Priority Established.

Apropos of the suggestion that a subscription be taken up for the benefit of the impecunious English cobbler Shergold, the claimant to the honor of having invented the safety bicycle, a description and cut of which were published in the BICYCLING WORLD some time ago, Cycling contains an exhaustive article on the subject of the machine, contributed by the veteran trade writer, A. J. Wilson.

The conclusions reached by the latter are that the machine in question may have been, and in all probability was, constructed at the time and in the manner claimed, viz., in 1876, and by Shergold himself in his cobbler's shop. The weight of evidence, while not of a positive or convincing character as far as this machine is concerned, is yet in that direction, and Wilson sees no reason to doubt the claims made. It was plainly the work of a person unfamiliar with bicycle construction as known at that day, the saddle being the most up-to-date fitting. This is explainable on the ground of Shergold's knowledge of leather.

But exception is taken by Wilson to the claim that this machine was the first safety bicycle. He holds that others very much like it appeared later, preceding Starley's Rover, but that they all lacked the feature that made the latter successful—the direct steering. Touching on this point Wilson says:

It is easy to understand why the enterprising advertisements failed to bring a great amount of trade to Shergold because although the germ of the modern bicycle was there in the rear-wheel chain drive, one can easily see that even when such a machine was brand new and well lubricated it would be slower and less manageable than the tall bicycle of the day; slower because of the crudities of its construction; less manageable because it had bridle rod steering.

Herein lay the cardinal defect of the design, and herein lies the one cogent reason why credit cannot be given to Shergold for having invented the modern bicycle. If we accept the bicycle as having been genuinely made by Shergold on the date named, the utmost we can do is to admit that it anticipates Lawson's bicyclette. There is no question about that, that if Shergold's bicycle was made before Lawson's bicyclette, the latter had absolutely nothing new in it, but was quite conceivably a deliberate copy of Shergold's machine, which Lawson may have seen on the road, Gloucester not being so very far from Coventry.

But even if it be admitted that Shergold anticipated Lawson, that does not constitute him the inventor of the modern bicycle, be-

cause Lawson's bicyclette was not like the modern machine. The bridle rod steering knocks both machines out of court. I have more than once pointed out that all these machines, such as the bicyclette, the B. S. A. and Starley's first Rover, failed because of their bridle rod steering, and that the one great improvement which made a success of the second Rover was the use of a big wheel in a sloping fork, which enabled the steering to be direct.

Mr. J. Wareing, of the Gloucester City and County Cycle Company, must surely be aware of this cogent circumstance, and it is not fair for him to issue the circular, of which I hold a copy in my hand, asserting that Shergold's machine embodied "all the points of the modern safety."

It did not embody them all. It did not embody the one point which made the modern safety a success, and without which the modern safety would never have supplanted the old ordinary. Lawson's bicyclette, even if it was a deliberate copy of Shergold's, was infinitely better in construction, being made by people who had a big factory and knew all the arts of bicycle construction so far as those arts had been carried at the time, yet all the Ariel and Rudge companies' skill could not make a success of Lawson's bicyclette, which was taken off the market and disappeared from the makers' price list.

Similarly, when Starley revived the pattern, the first Rover was not a success, and had nobody improved away the bridle rod steering we should still have been riding the ordinary bicycle. The one radical point of departure which enabled the Rover to set the fashion to the world was the use of the big front wheel in a sloping fork, which substituted direct steering for the bridle rod system.

Thus the only conclusion that I can arrive at is that Shergold's bicycle may have been made in 1876, and that at present I see no reason to doubt that it was made in 1876, but it was not the prototype of the modern bicycle. Such credit as Shergold is entitled to consists in having anticipated Lawson's unsuccessful bicyclette.

Cyclists are not "indebted to Mr. Shergold for the pleasure they enjoy a wheel," because the public never gained any advantage from Shergold's invention. It was not until 1885 that Starley perfected the Rover, and it is at that point that the public began to have a look-in.

Want Longer Season.

Press dispatches from Bristol, Conn., speaking of the local bell plants, which have been closed for some little time, say:

"The bicycle bell business is quiet, due to the lack of interest this year in bicycling. The New Departure and Liberty Bell companies' plants are practically closed, and have been for some time. The managers of both firms are casting about for something new that will keep their factories busy twelve months in the year, instead of manufacturing bicycle bells for six months and lying idle for six months."

1892

1901

(Oldest Pedal Manufacturers in America)

We are still doing business at the old stand and propose continuing to do so for sometime to come

Curtis Pedals

FOR

1901

Will maintain the reputation they have always had ♣ That's the best we can say for them ♣ ♣ ♣ ♣ We are now ready to talk prices ♣ and make contracts ♣ ♣ Are you? ♣ ♣ ♣

Reed & Curtis
Machine Screw Co.
WORCESTER, MASS.

Outside the Facts.

That "professor of mathematics and engineering" who is quoted as saying that "the bicycle as made has no right to bear the weight of a man" may have been well within the textbooks, but he was woefully outside the facts.

The bicycle has dumfounded many a man of figures before the learned professor, and it is not without the bounds of probability that the motorcycle will, ere it is many years older, add to the confusion of his kind. Had the bicycle been left to the mercies of the wise and scientific, but anything but imaginative, members of the engineering fraternity, the art of cycle building at the present day would have been in a very different position. Strains would have been discussed, dissected and provided for in a most elaborate manner; and the result would have been a marvel of truss work strikingly reminiscent of bridges, skyscrapers and other fine examples of structural iron and steel work. But they would not have been bicycles, as the term is at present understood.

No, the bicycle is a marvel of lightness, but still too heavy to suit the wishes of many of its riders. That it has no right to bear the weight of a man is an assertion that they will hesitate to assent to. And, really, it makes little difference whether they do or not. The bicycle does bear the weight of a man, and successfully; and any marked increase in weight to meet the views of the professor and his kind is quite as much out of the question as a return to solid tires.

New Bracket From Bridgeport.

The Smith & Egge Manufacturing Company, of Bridgeport, Conn., has something new in lamp brackets that is sure to attract wide attention when generally shown. It has already attracted an order for 100,000 from one of the prominent lamp manufacturers.

Dealer who has Done Something.

Frank I. Clark, of Baltimore, who is here pictured, is one who may be termed the advanced type of cycle retailers. He is thirty-two years of age, and was born in Baltimore. He embarked in the bicycle business in a very small way in 1892, at which time he handled the Rambler and Imperial. From 1893 to 1896 he handled the Remington, and from 1896 to the present time the Orient. He has seen the rise and fall of the cycle's popularity, and, believing in the future of the motor driven machines, he prepared himself early.



FRANK I. CLARK.

For the last two winters he has travelled the entire South in the interest of the Waltham Manufacturing Company, and last summer made his first acquaintance with the tricycle, and after a few days' instruction in the workings of the same, he started on a trip with the intention of going all the way from Waltham to Washington, D. C., and back again. The object of the trip was to demonstrate whether a person with inexperience could accomplish such a trip successfully. Another object was to ascertain if there were any structural weaknesses in

the machine, which the hard roads would put to the test, and thus enable the manufacturers to remedy it in their 1900 models. The motor used was a $1\frac{3}{4}$ horsepower, and the start was made with the front attachment, or quadricycle, on which Clark carried about 100 pounds baggage. The hardest part of the trip, he says, was made with a man weighing 185 pounds, a representative of a Worcester newspaper, on the front seat, the distance being from Worcester to Springfield, which was accomplished successfully. During this trip rain, mud and roads of all sorts were encountered, and the return trip was completed in something like twenty-eight days, an average of about 100 miles a day. Despite the small horsepower and hard work it was put through, the result was most satisfactory, and outside of proving its practicability Clark found many small mechanical points which the company remedied in their present models in order to now withstand the most extraordinary usage. He is now riding the machine daily over the rough cobblestone streets of Baltimore, and says he cannot too highly recommend it.

Only this month Clark undertook another task that gives him claim to no little gratitude and attention. As yet motorcycles are barred from the parks of the principal cities, Baltimore among them. Clark was not to be denied, and, engaging counsel at his own expense, he rode into the park and invited arrest. The police, however, were nonplussed, and feared to take him in without special authority. The authority never came, and Clark is still awaiting action.

Has a Tricycle, too.

Although not generally known, the Friedman Automobile Company, of Chicago, includes a motor tricycle among its productions. One of the machines is on exhibition in New York at the Automobile Storage and Repair Company's rooms, No. 57 West Sixty-sixth street. The Friedman people expect to open a branch office here soon.

A PERSONS PRODUCT.

UNEQUALLED ANYWHERE AT ANY PRICE.

PERSONS MANUFACTURING COMPANY, WORCESTER, MASS.

STEEL RIM REVIVAL

How and Why the Motorcycle May Bring Back the Lost Art.

With the growth of the motorcycle industry the manufacture of steel rims in this country takes on a new aspect. While very far from being in a way to attain the eminence it once enjoyed, it is, undoubtedly, in a very different position now from what it was a year or two ago, and the growth will continue for some time to come.

It is little exaggeration to say that wood rims killed the steel rim industry, seemingly beyond hope of resurrection. The art may almost be said to have become a lost one, the few rims that were still fitted to bicycles coming from the same place that the completed machines were to be sent, viz., Great Britain. On machines intended for sale in this country they were unknown. No maker even thought of fitting them.

But the whirligig of time has brought them back, or, at least, made a beginning. Motorcycles are the entering wedge, and while all motorcycles will not be fitted with steel rims, yet undoubtedly the bulk of them will, for some time to come at least. When the refining process has once set in, and that is, apparently, a great many years off, the question of rims will be taken up, of course, but until then there seems to be no reason to doubt that steel ones will have the call by a very decided majority.

The causes are not far to seek. First, there is the disposition to take no risks, and where weight does not cut any figure steel rims answer this purpose admirably. They can be made of any gauge and shape required, and this is much more than can be said of wood rims. The latter may be all right for some motorcycles—motor bicycles with small tires, for instance—but they are best left alone when larger and heavier machines, fitted with much bigger tires, are in question.

In the second place, the old war of tire patterns is on again, and a very pretty contest is promised before a settlement is reached. So far, it must be admitted, the detachable tire has the call. Makers of motorcycles evince a marked fondness for them—a fondness, be it stated, based on very convincing reasons. Whether they are right, as will be asserted in some quarters, or wrong, as contended in others, is outside the present discussion; the fact, however, remains, and has its effect on the subject of rims.

Wood rims can be, and are, made to take practically any pattern of tire. Beaded edge and wired-on types are equally served by them, and very little complaint is to be recorded in the case of either. Nevertheless, they do not possess the advantages of the wood rim as applied to the cemented variety of tire, and no amount of ingenuity in designing will quite overcome this defect. The superiority of wood rims over steel is, in the

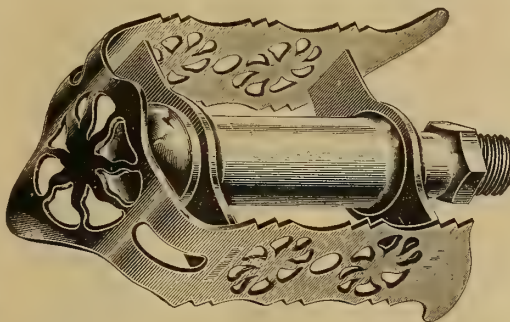
case of cemented tires, unquestioned, in this country at least; when it comes to detachable ones the case is very much weaker, and the net superiority very slight.

It will be readily seen, therefore, that steel rims on motorcycles are in for a good run. The demand for them must be supplied, even if, as at present to some extent, recourse must be had to importations. But that is too roundabout a way—too expensive, too long-winded—to hold sway long. Even now there are firms in this country turning out steel rims, and the number is certain to increase.

The revival of the industry is a very easy matter. But few obstacles are to be surmounted; any metal working firm can place itself in a position to roll rims in short order, and there should be no trouble in taking care of all the trade there is now or will be in the future.

Keim "In It" on Pedals.

As ever, John R. Keim, the Buffalo parts maker, means to be distinctly "in it" on



pedals next season. He will market five patterns, one of which is here shown, and quote prices that cannot fail of interest. With an eye to export trade, the pedals will be fitted with United States or B. S. A. pins.

Disadvantages of Double Cylinders.

More and still more power is the cry, even with the comparatively light motorcycles. It may be that the art of building motors will make sufficient progress in the near future to render feasible the construction of more powerful ones than have yet been turned out; and, if so, the disagreeable necessity of turning to double cylinder motors will be avoided.

Speaking of the troubles attending the latter, a well-posted observer says:

"With a single cylinder motor there is less trouble in finding out the cause of defective working and tracing the particular valve which is wrong—for it is nearly always a valve which is at fault. With the double cylinder motor this risk of failure is increased twofold, and in addition it is sometimes rather difficult to find which cylinder is not working up to its full power.

"Then, again, the mixture of a twin-cylinder engine, even when controlled by a throttle valve of proper dimensions and situated exactly equidistant between the two combustion chambers, is always more difficult to regulate, so that for the unmechanical a single cylinder motor offers many advantages."

WANT TAXES REDUCED

Valuation of the Overman Plant Still Claims the Court's Attention.

After hanging fire for a number of months the hearing in the case of the appeal of the trustees of the Overman Wheel Company against the valuation of its plant by the assessors in the years 1898 and 1899, and asking for an abatement, was taken up at Springfield, Mass., last week, before Special Commissioner E. P. Kendrick.

The argument of Judge Hitchcock, for the city of Chicopee, took the ground that a ruling should be carefully made, because it might otherwise create a precedent which would be used by other corporations in many cities, and pointed out that the value of a manufacturing plant consisted in its active operation, and that the plant on May 1, 1898, employed nine hundred hands, and a year later was employing seven hundred. He also compared the statement to the firm's creditors, showing that the assessors' valuation was away below the estimated value, and after contending that the machinery was still taxable, though not running, he asked for the following rulings:

First—Evidence is not admissible on the question of valuation of property for purposes of taxation to show that the business in which the property is used is being run at a loss, and cannot be run profitably.

Second—Evidence is not admissible on the question of valuation of property for the purpose of taxation to show that certain machines cannot be used advantageously or profitably in the prosecution of the particular business for which they were originally purchased, because of changes in the method of manufacturing the articles for which the plant is being carried on.

Third—Evidence is not admissible on the question of valuation of property for the purpose of taxation to show that certain machines cannot be used advantageously or profitably in the prosecution of the particular business for which they were purchased, because of later styles and improvements in such machines.

Later Luther White will present the Overman company's argument.

Conserving Power.

Plenty of air and as little gas as will run the machine is the motto of the experienced motorcyclist.

It almost invariably happens that the novice is too liberal with his gas, forgetting that gasoline costs money, even if it is cheap, while the air is procured gratis in unlimited quantities. Not only this, but the question of carriage is one that continually besets the rider, and any method of making the supply last longer is hailed by him with delight. In this connection it is well to remember that the proper proportion is about nineteen to one, a mixture of 95 per cent air and 5 per cent gas being pretty close to the proper thing.

ACQUIRING A POLISH

How the Most Brilliant Lustre is Imparted to Cycle Frames.

In these times when prices are so low that every item of expense cuts a figure, there is small chance for the hand polishing to receive general consideration, but here and there are high-priced "specials" and made-to-order mounds that give room for such a time-consuming finishing touch. The superior lustre of hand-polished enamel is well known, but not all know the exact process to be employed.

In the ordinary process of enamelling the frame is finished when it leaves the oven. If any variation of the original process is desired, it is in the direction of an increased number of coats of enamel, and longer period of baking to insure hardness, with, of course, increased care in the matter of cleanliness, for if a frame comes out at all rough it cannot be proceeded with, and must be rubbed down for another coat of enamel. For this class of work four coats should be given, i. e., a priming, then bodying, and three coats of finishing enamel, each coat being tested for hardness before applying another, and the first two coats of finishing carefully rubbed down with pumice powder prior to the application of the last coat, which should be applied fairly thick, but with every care. Particular attention must also be paid to the rubbing down between each coat, so that the enamel may be of uniform thickness, as to rub through to the tube would be fatal if only at one or two points, because the last coat of all has to be subjected to a rubbing down process, and unless there is a good body of enamel, the whole time spent would be wasted, so that in the preliminary coats the bodying in is the chief factor, together with thorough drying and hardness. Most enamels may be rendered hard enough by mere increase of temperature over a short period of baking, but this will result in brittleness, bad adhesion, and "cracking," all fatal to the object in hand, so that it is better to fall back on the lower heat and extended time if the best results are required.

Assuming that the frame is baked with a good, uniform thick coat of enamel—thoroughly baked—the procedure will be to rub down the dust specks and other rough places, without, however, removing anything more than is absolutely necessary to insure a smooth surface, and this is where the importance of an originally smooth surface comes in, for then very little rubbing down is required, and the lustre is more quickly and easily restored, for any approach to deep scratches would be fatal to the work, so that the baking must be done so as to leave the last coat as smooth as possible.

The actual outline of the process of hand burnishing is extremely simple, as it consists of nothing more than removing surface defects by rubbing down with certain mate-

rials, which rubbing down, of course, destroys the lustre of the enamel; then, when the necessary smoothness of surface is obtained, in restoring the lustre by further rubbing, the result in the best instances resembling polished ebony. The materials required in whole of the rubbing down and repolishing processes may be all or part of the following:

Lump pumice stone, finely powdered pumice, powdered rotten stone, crocus powder, tripoli powder, No. 1 rouge, fine rouge, and jewellers' rouge, the only other items necessary being clean water and soap, with plenty of elbow grease and patience. On removing the frame from the oven it is carefully examined for surface imperfection, and if there are many large sized dust specks or other faults it is no use proceeding on hand burnishing lines, the frame is simply rubbed down with lump and powdered pumice, washed clean, dried, and treated to another finishing coat, but when the surface appears suitable for treatment any prominent defects must be removed individually, and with the greatest care, using a lump of selected pumice of small size, suitable shape and fine grain, the piece of pumice is soaked in water and the speck is rubbed away with the lightest possible touch, the object being to remove the speck only, without interfering with the neighboring surface of smooth enamel, and the pumice requires handling with some care to avoid making scratches, which it would be impossible to thoroughly eradicate; at this stage, too, the workman's knowledge and experience are brought into play to determine whether the enamel surface is hard enough to withstand the burnishing, because, if not, the time taken up in rubbing down the surface so carefully will have been largely thrown away, for once rubbing down is commenced the thing must go through either one way or the other; either the hand burnishing is a success or the frame must go back to the oven.

But, assuming that all is favorable and a good body of enamel with fine surface is obtained from the pumice stone, the next step will be to rub down the surface generally with soapy water and crocus or tripoli, judgment, based on experience, being the guide as to what grade shall be used; for it must be borne in mind that the coarser the powder used for rubbing down, and the longer that process is continued, the longer will be the time taken in restoring lustre, and the worse that lustre will be, so that in the case of an exceptionally smooth frame it may be necessary to use nothing coarser than medium rouge, applied with the palm of the hand, and soapy water as a lubricant; when once the operator is satisfied that the surface is smooth enough, all trace of the former grinding material should be washed away and the repolishing process commenced; this may in cases take a wet form, as before, for a start, fine or jeweller's rouge being used, again applied on the palm of the hand; or, if the surface looks extra good and with a fair indication of bright-

ness, the frame should be placed in the stove for a few minutes to dry it, and the polishing be proceeded with by using dry rouge of a grade indicated by the surface.

But there are other points to be noted in some cases before this stage is reached. After the rubbing down with wet crocus or tripoli or rouge it will sometimes occur that in washing down the frame there are red patches of the grinding material left in the enamel, and which cannot be got away with soap and water, or even spirits; this is due to softness in the enamel and the warmth caused by friction and the pressure of rubbing, and when this state occurs the best means of removing the colored patch is smart rubbing with a dry strip of some linen fabric, such as an old table cloth or even linen towel, the frame being supported in a vice or stand, and a fair pressure applied to the linen strip while polishing cross-wise of the tube. If under this treatment the enamel comes away along with the rouge it is too soft, and the frame had better be passed into the stove for another hour if the surface is not beyond hope, although all the rouge must be removed first, or it will bake in and be irremovable afterward.

Another material which may be called in to assist in the final polishing in the dry stage is silk velvet in strips, or even velveteen, but it should be undyed or well washed to remove certain chemicals and grease. The velvet pile is lightly loaded with rouge and the strip passed around the tube with light but brisk action and constantly varying position, the eye following all the movements and effects, until the surface appears good enough for the final touch, which is done with the finest rouge, applied lightly on the palm of the hand, though the soft, fleshy part of the forearm makes the best polisher of all, and in this final polishing the tubes are rubbed lengthwise, thus tending to remove any light scratches left by the former circular motion.

After the first general rubbing down with crocus, tripoli or rouge, with water and soap, it is best to let the composition dry on and then rub it away, still dry, with a strip of velvet or other fabrics, because this further assists in the polishing, and the material as a whole comes away easier than by washing, though washing in clear water is necessary to get the powder away from the crevices.

The general object, then, is to get rid of the roughness with the least amount of rubbing down, because the labor of obtaining the final polish will be correspondingly less.

After a satisfactory gloss and surface have been obtained with the finest rouge, all remains should be dusted away and an extra polish given with a fine chamois leather or old Indian silk handkerchief, light pressure and quick strokes being essential.

Of course, this process will not leave the surface with the glasslike brilliance that the frame has when it comes from the oven, but the extra smoothness with the soft, watery-like gloss is indicative of better work and altogether superior in appearance.

THE OTHER SIDE

Broadsides of Ink Fired at the Physician who Belittled Motor Bicycles.

The English physician who some time since detailed his experience with a Werner motor bicycle has caused a deal of ink to be spilled on the subject. It will be recalled that the doctor, whose narrative and deductions were reprinted in *THE BICYCLING WORLD*, gave a very qualified opinion of the bicycle. While he enjoyed the season of speeding through space without effort, he considered that the vibration was so racking and fatiguing that motor cycling would never made much headway.

Having given the doctor space, it is only fair that the "other side" should be heard. These are fair specimens. Hear them:

"I am the happy possessor of a Werner motor bicycle, 1900 pattern, and I say without fear that it is a charming little machine used in the right way, and with care not liable to any accident that an ordinary bicycle would not be liable to. Simply because it has a motor that will enable it to travel twenty-five miles an hour, is that any reason that risks should be taken that an ordinary bicyclist would not take? Of course, I am not comparing it to a car that one can take out in any weather with care, but who would ride a bicycle over greasy roads at any pace above a few miles an hour, or go sharply round corners? Personally, I ride mine every day; find it perfectly under control, and see no reason why I cannot ride it till I am tired. It is, in my opinion, a machine that will be sold by the thousand if produced at about £30 to £35, and with one or two improvements. If the makers could only introduce a clutch for the driving wheel it would be perfect. I love my machine, and I am forty-five, and weigh fifteen stone, and am not a scorcher nor interested, and I say buy, buy, buy at once."

"I have ridden a Werner bicycle for some time now, and I must say at once that for simplicity, fast running and reliability there is nothing to beat it in the shape of a self-propelled machine. I have ridden a Werner bicycle on wet and greasy roads around London, using as much care as riding a safety, but up to the present have not experienced a side-slip. One must use discretion with any machine, and I think as regards a motor of the simplest description it would be safer for 'humanity at large' if such riders would conform to the rules of the motor, which would then adapt itself to any condition of the road. Last Sunday, journeying from London to Brighton, the first six miles was run on a greasy road. I covered the distance in three and a quarter hours, which included a stop of over a quarter of an hour to replace a broken exhaust valve. My bicycle has run about fifteen hundred miles, and is as good as ever. The motor weighs

about twenty pounds, and the machine complete weighs under seventy pounds. I can climb a hill of one in twelve at eighteen miles an hour. My experience gained through the use of fifteen bicycles of the safety type has taught me that twenty miles on either of them is more fatiguing than one hundred on a Werner."

"I am personally interested in motor bicycles, because I possess one of these 'dangerous' machines. Some months ago I seriously entertained the idea of buying a motor bicycle, but before finally deciding I read all the literature and correspondence on the subject with which I could meet, and which I found almost unanimous in its condemnation. I saw as many illustrations and drawings of existing machines as I could, but none appealed to my fancy. Being a novice concerning oil motors, although familiar with steam, I bought a one and three-quarter horse power De Dion motor with accessories, and passed my leisure time in mastering its details and management. When I considered myself fairly proficient, I had a bicycle built. It arrived about the end of July last. Since then I have ridden it several hundreds of miles. In the first place, the machine is very heavy (considerably over one hundredweight), which at first makes it feel very cumbersome, and, if one has to push it any distance in warm weather, produces the effect of a Turkish bath, but after a short time one fails to notice the weight, and finds it advantageous, since no doubt the easy running of the machine is in a great measure due to its weight. In one account of a motor bicycle which I saw the writer stated that on the level his machine travelled very well, but that it mounted hills in a very jerky manner. I have never noticed any difference in the running of my bicycle, whether I be travelling up or down hill or on the level. I carry two accumulators, one in reserve, and am certain that a motor runs much better with an accumulator than with dry cells. During the first two days that I rode the machine I had three falls, but did not injure myself, and the only damage done to the machine was a twisted handle bar and a bent footrest. On one occasion I failed to switch the current off before falling, and saw the motor make one or two spasmodic efforts while the machine was on the ground, but there was neither explosion nor fire, and on raising the machine I saw that petrol had flowed into the cylinder. After this had evaporated I started the machine and rode home (fifteen miles). With regard to side-slip, I have ridden all kinds of bicycles during a period of nearly thirty years, and have never come across one without that tendency. As yet I find the motor no worse than the ordinary."

Madagascar Holds Promise.

Owing to the spread of road improvement in Madagascar, the English consul there reports that the interest in and demand for bicycles has considerably quickened; he believes the market worth cultivating.

WHERE'S THE WEAR?

Peculiar Claim That Front Tires of Quadracycles are First to go.

It has been discovered by an English rider that on, at least one type of motorcycle, to wit, the quadracycle, the front tires are the ones to wear out most quickly.

This assertion is not likely to be given ready credence. Experience with bicycles, man-driven, shows exactly opposite results, and why it should be so different with a motor quad. is not exactly easy to understand, notwithstanding the explanation given by the rider in question, which is as follows:

"A correspondent says he has ridden a quad. over 2,000 miles, and has worn out two pairs of front tires, while the first pair of back tires are still in use. He asks us if we can account for the front tires wearing out so quickly. We can. Our own experience with a quad. has been the same. We have had to have one new pair of covers for the front tires, and three times have these tires had to go back to the makers for recovering. At first blush it would seem that the two driving wheels should wear out quickest, but this is not so. The two back tires, although they do carry more weight than the front ones, run without the sudden deviations which the front or steering wheels have to make. It stands to reason that there is considerably more wear on the front wheels by reason of the steering on all sorts and conditions of roads, and we wonder it has never occurred to the makers to fit stouter tires to the front wheels."

Even this explanation does not make out a case. In a quad. quite as much as on any other form of cycle, the rear wheels have to take the greater part of the weight and to do the driving, and it will take a great deal of argument to convince the average cyclist that the greater mobility of the front wheels causes them to receive sufficient hard usage to more than counterbalance the two factors operating so hardly on the back wheel tires. It is not reasonable to suppose so, and on that account alone there will be a disposition to differ with the discoverer in question.

Besides, and this will go a great ways toward clinching the matter, no one in this country has found the front tires to be put hors de combat sooner than the rear ones. The latter almost invariably become candidates for the scrap heap long before their companions in front, and this is evidence that is hard to overcome.

Dealers' Doubtful Assets.

There are at the present time too many dealers whose scanty profits are represented by such items as "accounts and bills receivable." The bulk of such accounts are more than doubtful; they are quite uncollectible yet credit would undoubtedly be extended to these creditors next year by other dealers if it were asked for.

The Week's Patents.

- 657,517. Method of Making Vehicle Wheels. Henry F. Condon, De Kalb, Ill. Filed Jan. 17, 1900. Serial No. 1,735. (No model.)
- 657,529. Lunch Carrier. Martin Fesler, Salt Lake City, Utah. Filed Oct. 5, 1899. Serial No. 732,687.
- 657,571. Cap for Tire Valves, etc. George H. F. Schrader, New York, N. Y. Filed Apr. 25, 1898. Renewed May 5, 1900. Serial No. 15,647. (No model.)
- 657,572. Tire Valve and Cap. George H. F. Schrader, New York, N. Y. Original application filed June 21, 1898. Serial No. 684,062. Divided and his application filed Jan. 4, 1900. Serial No. 337. (No model.)
- 657,649. Vehicle Air Brake. William J. Donaldson, jr., La Grange, Tex. Filed Oct. 11, 1897. Serial No. 654,915. (No model.)
- 657,652. Carburetter. Charles North, Elizabeth, N. J., assignor to E. P. Reichhelm, Bayonne, N. J. Filed Aug. 16, 1899. Serial No. 727,373. (No model.)
- 657,662. Controlling Means for Explosive Engines. Fredrick A. La Roche, New York, N. Y. Filed Mar. 14, 1900. Serial No. 8,617. (No model.)
- 657,667. Bicycle Frame. Virgel H. Mills, Hubbard City, Tex. Filed Dec. 9, 1899. Serial No. 739,836. (No model.)
- 657,697. Hand Grip for Handle Bars. August Getz and William C. Westall, San Francisco, Cal. Filed Sept. 8, 1896. Serial No. 605,050. (No model.)
- 657,701. Driving Mechanism for Cycles. Frank J. E. Johansson, Stockholm, Sweden. Filed Apr. 14, 1900. Serial No. 12,907. (No model.)
- 657,738. Carburetter for Explosive Engines. Henry L. Jessen, Watsonville, Cal. Filed Nov. 15, 1899. Serial No. 737,017. (No model.)
- 657,739. Vaporizer for Petroleum Engines. George Kiltz, Marengo, Ill. Filed July 5, 1899. Serial No. 722,785. (No model.)
- 657,740. Carburetter for Gas Engines. George Kiltz, Marengo, Ill. Filed Apr. 25, 1900. Serial No. 14,366. (No model.)
- 657,755. Air Compressing and Carburetting Machine. Adolphe Bouvier, Lyons, France. Filed Mar. 9, 1900. Serial No. 796. (No model.)
- 657,756. Motor Mechanism. Gustav A. Brachhausen, Rahway, N. J. Original application filed Apr. 4, 1900. Serial No. 11,415. Divided and this application filed June 7, 1900. Serial No. 19,347. (No model.)
- 657,760. Electric Igniter for Explosive Engines. Isaac H. Davis, Boston, Mass., assignor of one-half to E.

D. Mellen, Cambridge, Mass. Filed Nov. 18, 1899. Serial No. 737,408. (No model.)

657,770. Carburetter. Samuel E. Hedrick, Spencer, Ind. Filed Nov. 20, 1899. Serial No. 737,672. (No model.)

657,772. Bicycle Propelling Mechanism. Edward L. Holmes, Chicago, Ill. Filed Feb. 23, 1900. Serial No. 6,293. (No model.)

657,859. Driving Gear for Velocipedes. James Cottrell, London, Eng., assignor of one-half to Alfred Henry Smith, same place. Filed Dec. 28, 1897. Serial No. 664,071. (No model.)

DESIGN PATENTS.

33,191. Lamp Brackett Member. William P. Crary, New York, N. Y. Filed Jan. 11, 1900. Serial No. 1,146. Term of patent, 3½ years.

33,199. Bicycle Seat Post. George G. Spencer, Chicago, Ill. Filed Sept. 23, 1899. Serial No. 731,498. Term of patent, 7 years.

The Retail Record.**CHANGES.**

Webster, Mass.—J. Bergmann, making alterations.

Port Jervis, N. Y.—Frederick D. Brown, discontinued.

Waterloo, Iowa—John Rethline, succeeds Rethline Brothers.

Meriden, Conn.—Wusterbarth Brothers, 108 Miller street, succeed S. W. Proudman.

Corning, N. Y.—George W. Robertson and George T. Wolcott, trading as Crystal City Cycle Store, dissolved partnership; Wolcott will continue business.

NEW STORES.

North Lima, O.—Charles D. Fox, repairing.

East Lockport, N. Y.—H. W. Kratzer, 274 Market street.

Lindenhurst, N. Y.—W. F. Wild, Wellwood avenue, repairing.

FIRES.

Little Falls, N. J.—John Potts.

Springfield, Mo.—Kraft & Garnett.

Spring Lake, N. J.—C. Edward White, total loss.

Paris, Ont.—P. H. Hamilton and C. R. Burns.

Buffalo, N. Y.—Manhattan Bicycle Company, 364 Main street.

MORTGAGES, ETC.

Muncie, Ind.—Alexander F. Scott, filed real estate mortgage for \$1,000.

Hudson, Mass.—Crawford E. Prescott, filed real estate mortgage for \$300.

Recent Incorporations.

Denver, Col.—George N. Pierce Company, with \$250,000 capital; office, Buffalo, N. Y. Incorporators: George N. Pierce, Henry May, Samuel J. Thompson, E. Clifford Potter and Lorenzo B. Sowerby.

The Week's Exports.

Following the heavy shipments of last week, the exports of the week, which closed on the 19th, were weak and small by comparison, the only considerable shipment being that to the Argentine Republic. The record in detail follows:

Amsterdam—8 cases bicycles, \$250.

Argentine Republic—46 crates bicycles, \$4,435.

British Australia—6 packages velocipeds, \$84; 23 packages bicycle material, \$721.

Brazil—1 case bicycles, \$75.

British West Indies—9 cases bicycle material, \$273; 1 case tricycles, \$68; 2 cases bicycles, \$60.

British Guiana—6 cases bicycles, \$178.

Bremen—1 crate bicycles, \$35; 3 cases bicycles, \$200.

Berlin—1 case bicycles, \$63.

Cuba—10 packages bicycle material, \$215.

Christiana—4 cases bicycles, \$199; 1 box bicycle material, \$50.

Cairo—8 cases bicycles, \$230.

Dutch Guiana—7 cases bicycle material, \$73.

Dutch East Indies—3 cases bicycles, \$300.

Genoa—7 cases bicycles, \$210; 17 packages bicycle material, \$606.

Harve—8 packages bicycles and parts, \$345.

Hong Kong—2 cases bicycles, \$174.

Hamburg—34 packages bicycles, \$1,180; 25 packages bicycle material, \$875; 2 cases velocipeds, \$27.

London—35 crates bicycles, \$1,037; 7 cases bicycle material, \$240.

Liverpool—8 packages bicycles, \$320; 1 case bicycle material, \$20.

Mexico—1 case bicycles, \$30.

Manchester—12 cases bicycles, \$286.

Milan—5 cases bicycle material, \$308.

New Zealand—25 cases bicycle material, \$1,223; 24 cases bicycles, \$596.

Naples—1 crate bicycles, \$25.

Odessa—4 packages bicycle material, \$262.

Rotterdam—4 crates bicycles, \$166; 11 cases bicycle material, \$436.

Southampton—10 cases bicycle material, \$347.

Southampton—10 cases bicycle material, \$347.

Stockholm—4 boxes bicycles and material, \$154.

United States of Columbia—1 case bicycle material, \$21; 1 case of tricycles, \$26; 1 case bicycles, \$12; 2 packages bicycle material, \$189.

Vienna—1 case bicycle material, \$23.

Another Advantage Discovered.

Some one has discovered another benefit of the coaster-brake: It makes the cleaning, lubricating and wiping of the chain simple and easy.

The Autotri Company is the odd appearing and peculiarly compounded title of a Philadelphia concern making a peculiar appearing motor tricycle.

Where Boldness Wins.

It has been frequently remarked that the greatest sufferers from punctures have frequently been those riders who took the most extreme precautions against them. Per contra, the most daring, apparently the most careless riders have been the ones to go scotfree when the puncture demon was most active.

For example, if the "road-menders" have been at work, and left a patch of loose metal covering the entire roadbed, the reckless rider would plunge boldly into the uninviting mass and escape without the vestige of a gash to his tire. Not so with the careful cyclist. He would sigh and hesitate, as he perceived the obstruction, and when he finally made up his mind to essay the venture, he would approach the stones at a snail's pace, wriggle from side to side in the effort to dodge particularly vicious looking specimens, thus covering about three feet to his companion's two, and get to the other side with a flat tire or one badly cut.

This is the worst method that could possibly be indulged in. When compelled to ride over a patch of stones on the road it is best to pass straight over them. To attempt to dodge the stones is the surest way of getting a puncture. Riding direct over them the stones meet the tread, the thickest part of the tire, and it is the "screwing" action in trying to pick a way through that tends to force a sharp stone through the tire.

An Improved Truck.

One of the chief difficulties encountered by railroad companies in handling bicycles as baggage has been in their carriage to and from the baggage cars. Usually they were piled on trucks, pell mell, frequently on top of trunks and other baggage, or on top of one another. Their condition at the end of the journey may well be imagined.

In the new terminal station at Boston, however, a decided improvement has been made in this respect, a truck having been designed especially for this purpose. The body of the truck is ten feet long, and it will hold fourteen bicycles, any one of which can be taken off without disturbing the others. The usefulness of a truck of this kind at a large station is too obvious to need mention.

Another Free Running Test.

A simple test of the accuracy of a free-wheel clutch is to lift the machine and spin the wheel, holding the cranks stationary if they will not remain so otherwise, says an English contemporary. Get the wheel spinning at a good pace, and then note the behavior of the chain ring. If the hub and clutch are truly made the ring will not show any sign of movement as the hub runs inside it, but if it is poorly made and fitted it will be seen to move up and down and sideways—a sort of gentle rolling motion. If watched very closely the best clutch made will be found to move very slightly, but the motion should be so small as to be unnoticeable except under very careful examination indeed.

Changes at Westfield.

Among the improvements under way at the Westfield plant of the A. B. C., consequent upon its designation as the shipping point for the Lozier product, is a large storehouse. This will provide room for the large stocks of machines that will be gathered at Westfield during the shipping season. An office in the front section of the main building is also being fitted up for the use of the present office force, the intention being to turn the present office over to the big shipping force the new arrangements will require.

Development in Motor Bicycles.

Having led the way with motor tricycles, the French are now endeavoring to duplicate their success with the two-wheeler. One machine for which great claims are made is called the "Bourgeois." In it the back portion of the frame is triangular in form, giving a very long wheel base, and allowing the engine to be slung vertically, thus permitting the driving belt passing alongside the chain without interfering therewith. The machine is said to be giving satisfaction. Complete, it weighs 80 lb., and the maximum speed capacity is said to be forty miles an hour.

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WHAT ARE THEY AND WHAT WILL THEY DO?
 Is completely answered (without the use of technical language) and available directory of makers of motor-vehicles and their parts is given in a special number of
THE MOTOR AGE
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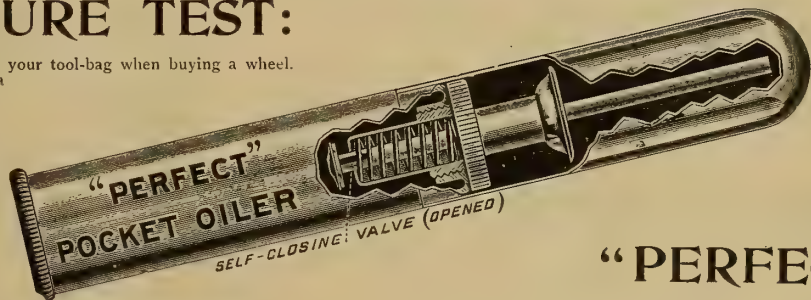
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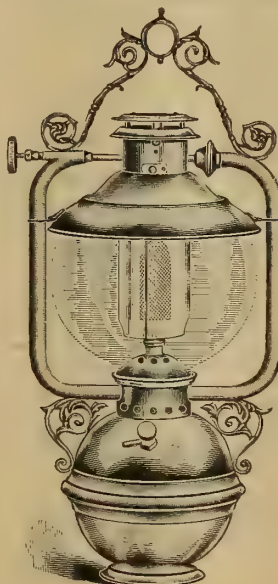


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you will know that it has cost the maker of the bicycle more than twice as much as the ordinary oil can. The probability is that such a maker is building wheels with regard to QUALITY rather than expense.

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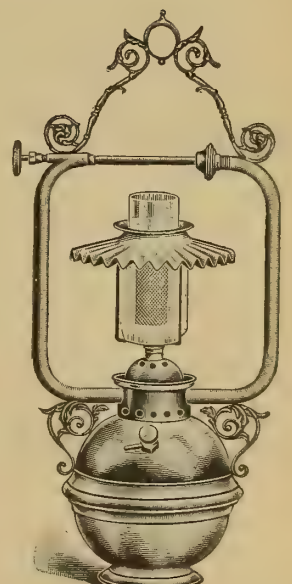
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1900

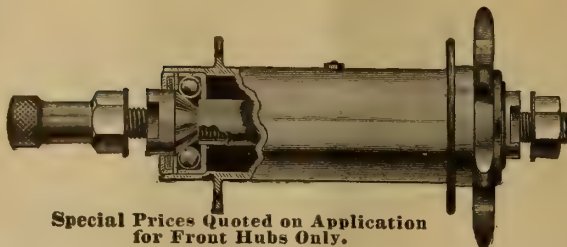
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Lv. Boston	10.45 A.M.	2.00 P.M.
Due Albany	4.10 P.M.	7.35 "
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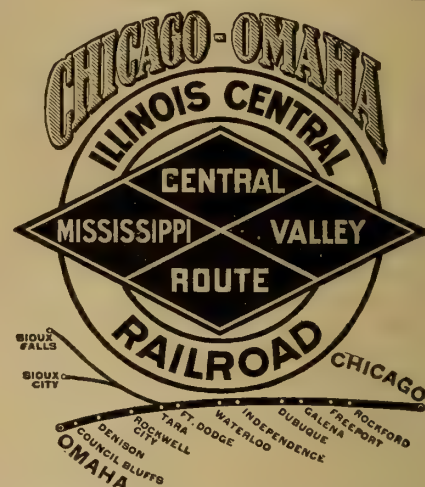
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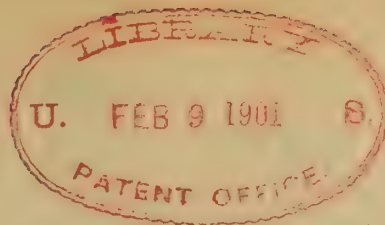
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The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLI

New York, U. S. A., September 27, 1900.

No. 26

TWO TURNS IN THE TIRE TRADE

**Tillinghast Schedule on Single Tubes Upset and all
Sorts of Prices Prevail—Efforts Making to Ef-
fect a new Combination and to Restore
Old Figures.**

In a small way THE BICYCLING WORLD of September 6 remarked that "the situation in the tire trade has reached another interesting stage," and hinted that developments were probable at any time.

The developments came last week, but so quietly that nothing was known of them until Monday last. It then became public that prices were being quoted on single tube tires at variance with the Tillinghast schedule of \$4.25 a pair for guaranteed tires and \$2.75 for the unguaranteed goods.

Since the Goodyear Tire and Rubber Company broke away from the agreement, or rather since it was charged with bad faith in carrying out its terms, the strain on some of the other parties to the deal has been tremendous. Faced by the Goodyear quotations, their regard for the agreement has kept them in line and forced them to turn away some desirable orders. One of the Akron licensees is known to have refused two orders, each of which mounted well into five figures.

The tension finally became so great that the Associated Tire Manufacturers were called together in New York last week to consider measures for relief. The organization consists practically of the Tillinghast licensees, and it can be stated on authority that the meeting was a stormy one. The upshot of it all, however, was a decision that the members should sell at any price they pleased as long as they paid the Tillinghast royalty.

This broke the strain and the new quotations were at once scattered to the winds. The result of the wide-open policy was disappointment and semi-demoralization, the bicycle makers and jobbers failing to place the expected large orders. While some of them booked their supply, the majority are

holding off, believing that the prices will be forced lower and still lower.

While this state of affairs exists it may be stated, also on authority, that not a few of the tire makers have come to realize that the throat-cutting policy will serve them no good, and are bending their efforts to effect a new combination.

Everything indicates that the effort will succeed, and there are sound reasons for stating that in all probability the price of unguaranteed tires, which was the main cause of the trouble, will be back on the old basis, \$2.75 a pair, within the next two weeks; it is not even certain that the market will not advance within the next day or two.

Gould the Star Witness.

The testimony being taken in the "bottom bracket case"—the suit of the American Bicycle Company against the H. P. Snyder Manufacturing Company—has reached its most interesting stage, and has uncovered the Snyder people's "star" witness. He proves to be A. J. Gould. He was on the rack for twenty-seven days, and had nearly nineteen hundred questions fired at him.

It is understood that he made oath that Smith, the alleged inventor of the bracket, sent him to England to select the best bottom bracket he could unearth. Gould found four devices that impressed him and brought them to this country; two were brass castings and two were of malleable iron, one of them being the famous bracket now in dispute.

The American Bicycle Company has naturally endeavored to discredit Gould's evidence, which, however, has been corroborated by several persons to whom he showed the bracket, and by Smith's wife, who is giving testimony this week.

While Snyder appears as the defendant in the case, as is generally known, the Cycle Trades Protective Association is really fighting the suit. Its officers have all along been sanguine of a favorable decision, but until Gould's testimony was given they declined to say that he was the card they would play as a trump.

**Hartford Rubber Works Buys up one Competitor and
Takes Over the Output of two Others—Will
Hereafter Market both Single and
Double Tube Tires.**

While the tire trade has been fairly throbbing with interest and more or less anxiety, L. D. Parker, president of the Hartford Rubber Works Company, has been "doing things" calculated to considerably increase the interest.

In the quiet way which is his wont he has purchased and added to the Hartford property the entire tire, tube and sundry plant of the Mechanical Fabric Company, Providence, R. I. The machinery is now being removed to Hartford, where it will be re-employed in the manufacture of Conqueror and Flexifort tires.

Coincident with this deal the Hartford Rubber Works Company has acquired the sole selling agency for the bicycle tires made by the India Rubber Company, Akron, Ohio, and the New Brunswick (N. J.) Rubber Company, and will market the outputs of both those factories.

All this means that the Hartford company's already strong position in the trade will be still further strengthened. With not only the popular Hartford tire, but the Conqueror, Flexifort, New Brunswick and India tires under its direct control, and being sold and pushed by the largest selling force on the road and in branch depots, the Hartford people, with both single and double tube tires at its command, ought to cut an even wider swath than usual and make it uncommonly interesting for any one looking for interesting competition; in fact, one story has it that the deals were consummated with an eye to this purpose.

The Hartford plant has always been known as one of the best money makers in the trade, and it is no secret that the 1900 season has more than sustained its reputation. In unhampered control, President Parker has made it the most profitable season in its existence.

PROGRESS IN ENGLAND

Motocycle Movement Gathering Force and Carrying Improvement in its Train.

London, Sept. 8.—At present there is an evident desire on the part of many of our more prominent motocyclists to employ tricycles of considerably more power than has hitherto been customary. This means that if the machines are to be ridden far without stopping or at high rates of speed, water-cooling must be resorted to. Now already the motor tricycle, when fully equipped as a touring machine—that is to say, fitted with a combined petrol tank and carburator, together with an extra tube of large size divided partly for petrol and partly for the storage of lubricating oil—is fairly heavy. Added to all this there must be a large tool-bag, provided with some heavy tools and a few spare parts. The weight is therefore increased considerably, and this means that the tires must be stronger. Moreover, the space in the frame is all used up, so that the fitting of a water tank is rather a puzzle. Yet with motors of more than $2\frac{1}{4}$ h. p. a water tank seems desirable, if not absolutely necessary. The only thing is to consider if the present air-cooled motors are not really sufficiently powerful, having regard to the fact that they are capable of travelling at a speed of thirty miles an hour on the level. When this rate of progression can be attained it seems a pity to add extra complications for the sake of a trifling extra pace.

But on some of the newer tricycles two motors are fitted, and these are frequently provided with surface carburators of large size. Yet on the voiturette class of car one motor is usually considered sufficient for two people, and it should therefore be ample for a tricycle. And I believe that it is ample for all requirements other than actual racing.

SOME IMPORTANT IMPROVEMENTS.

Experience with an Ariel tricycle has confirmed the opinion I formed when I first saw this machine, namely, that the placing of the motor in front of the axle instead of behind it, as on the ordinary pattern of De Dion, is a better arrangement. The steering is undoubtedly more steady, especially when the motor is being started in traffic, as there is a perceptible lessening of the objectionable jumping of the front wheel which is often apparent when a motor tricycle is being started, especially if any attempt to steer around a corner be made at the same moment. As the frame is also longer, the wheel base is increased, which adds still further steadiness to the steering. I have not yet had the pleasure of trying the new arrangement the Ariel company is bringing out, which has the object of disconnecting the motor from the machine at will, so that when riding in traffic the motor is not stopped when the tricycle is stationary, but is kept going and connected up by means of

friction clutches when the rider wishes to proceed. This avoids the use of the pedals, which is not only laborious, but looks anything but well. I opine that this arrangement will be one which will be much appreciated by motocyclists and is likely to become wellnigh universal. It may also be the forerunner of a really satisfactory two-speed gear, which would prevent the necessity for resorting to pedalling even up steep hills.

AS TO THE MOTOR QUAD.

The trade in motor quads seems fairly brisk, and the fact that such machines are as yet faster than most of the cheaper cars gives them a hold upon the public. Up hill they are not so good as they might be, but here again a two-speed gearing would do a great deal. The great charm of the motor quad is that all the working parts are as simple as those of the motor tricycle, and are identical with them, so that no very special knowledge is required, which is hardly the case where even a small car is concerned. On the other hand, a few people are raising objections to the quad on account of the passenger—more often than not a lady—being placed in front, and therefore in the most dangerous position in the event of meeting a restive horse. I fancy, however, that there is very little in this; but if such a machine be wanted it would be easy to make one with the passenger placed behind. This would probably be better than a trailer attached to the tricycle, which is sometimes used, and is not particularly successful down steep hills, as, if travelling at a high speed, the carriage sways under such conditions, especially if the brake be applied to the tricycle. Were the brakes applied with equal power to both the wheels of the trailer the result would probably be better.

RAILWAY QUESTION UP ALREADY.

With further reference to the weight question: While it is very necessary that the margin of safety in a motorcycle shall be ample, yet if the weight can be kept within reasonable limits the day may come when the railway companies may be forced to carry such machines at a more reasonable charge than the 12 cents per mile which they now insist upon. This rate is the same as that charged for a car or a carriage which necessitates putting on a special truck, but the motor tricycle is conveyed in the brake van in the same manner as an ordinary cycle. It is a little hard on the motorist who may suffer from a breakdown that he cannot get his machine conveyed except at such extortionate charges. With all the influence which the Automobile Club claims to have in high places, one would suppose that some steps might be taken in the matter, though perhaps the humble motocyclist is not worthy of attention. But as motocycling increases—and there are signs that its increase will be very rapid—something will no doubt be done to bring the railway companies to reason. At present, should an accident happen, it is cheaper to put the machine up at a roadside inn and journey to

the nearest town where there is a motor depot for any new parts which may be required. Taking the machine itself is out of the question with most people who are not millionaires. Motoring is expensive enough when all goes fairly well, but when railroad rates have to be contended with it makes a veritable Croesus anxiously survey his financial position. In France motorcycles are conveyed at practically the usual luggage registration fee, but then French railways are not mere monopolies, and hence are worked for the good of all classes without prejudice.

MORE LOCK NUTS WANTED.

In order to show the necessity for a better system of locking nuts to hold those parts which have occasionally to be removed from the machine for any purpose, I may instance a ride I took one day this week. The distance was about eighty-two miles across Essex roads, which are not of the best. The journey, taken on a French De Dion tricycle, occupied a little under four hours and was a non-stop run; but when I pulled up at my destination I seemed to have only about half the machine with me. Most of the nuts had shaken off, including both the large ones on the axle ends. The case of the contact breaker was missing, together with its nuts. The top screw of the carburator and the cap of the petrol tank were also not to be found. All these articles might easily have been secured by a proper system of locking nuts. As I ruefully viewed the machine I thought that it would be a good thing to start in the motor parts supply line and cut prices by means of sending out an army of cycle-mounted boys to follow the routes taken by motocyclists and pick up the pieces, which might then be retailed at a good profit. If Hooley were only Hooley and the "boom" still boomed, I would start a company on the idea.

France's Great Growth.

Although interest in cycling was supposed to be waning in France, as elsewhere, the tax returns for the year 1899, just published, show a remarkable jump, the cycling population nearly doubling itself. In 1894 the tax was collected on 203,026 cycles. There was an increase of 53,000 the following year, of 73,000 in 1896, of 80,000 in 1897 and of 77,000 in 1898, the figures for that year being 483,414. Last year, however, disclosed the large total of 838,856 cycles paying the tax, but, as one writer puts it, it is left to be guessed whether the rise is due to the growing popularity of the pastime or to the increasing vigilance of the tax collectors. The Department of the Seine, in which Paris is located, accounts for almost a quarter of the total number.

Getting up Steam.

Work on the 1901 Explorer is being prosecuted by the Empire State Cycle Company at Addison, N. Y. It is expected that the factory will start up early in October with a full force of workmen.

THOMAS'S MOTOR BICYCLES

Three Different Types Embodying Some Original and Ingenious Ideas.

If the E. R. Thomas Motor Co., of Buffalo, is not pretty near the top of the heap when the motorcycle movement attains force it will be more than surprising. The thorough and painstaking manner in which they have gone into the business and the wide scope which their operations embrace are as suggestive as they are impressive.

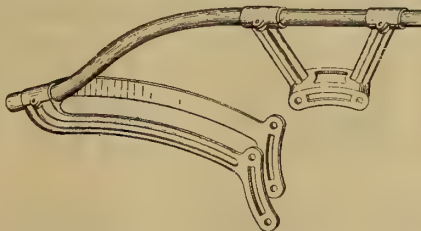
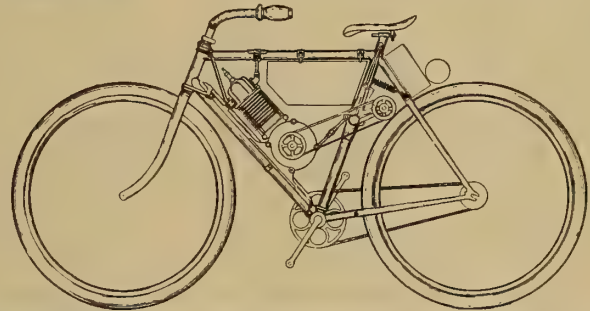
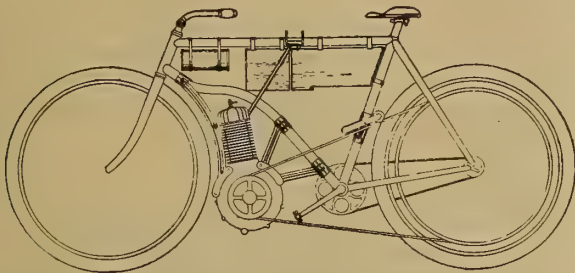
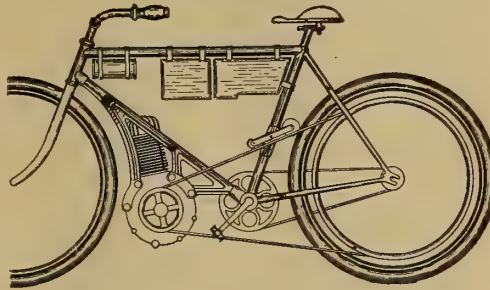
Two weeks since the BICYCLING WORLD gave the first full idea of their plans and product; it is not too much to say that it opened the eyes of the trade.

That the Thomas people intended to supply not only motor tricycles and quadricycles but several types of motor bicycles, and also to sell motorcycle fittings to the entire trade, was known to comparatively few,

Drawback on Transfers.
Under a ruling just made by the Treasury Department a drawback will be allowed on the exportation of lithographic transfers, such as are manufactured by the Meyercord Company, of Chicago, from imported decalcomania papers. This drawback will be equal in amount to the duties paid on the imported material so used less the legal deduction of 1 per cent.

The entry under which the merchandise is to be inspected and laden must show the

THOMAS'S MOTOR BICYCLES.



THE THOMAS TRUSS.

and publication of the news could scarcely fail to prove in the nature of an eye-opener.

The news sharpened the desire to know more of the goods and to "see what they look like." The Thomas people have not been slow to appreciate the opportunity and make the most of it. Their motor bicycles are now ready for inspection. The three types of it are shown by the accompanying illustrations. They are so plain that little description is really necessary. The forks of the machine are about the only details that are not brought out; these are substantially two pairs of forks joined at the head, affording strength that it is easy to appreciate.

If there is any particular feature of the machine that Mr. Thomas prizes more highly than any other it is the patented motor truss, with which two of the bicycles pictured are equipped, and which is also shown separately. As will be seen, it holds the motor forward of the crank bracket and throws the weight near the ground, a feature for which many are striving. This truss is detachable, as will be noted, and may be removed at will.

In the machine without the truss, the driving belt is not carried to the rear wheel, the motor being actuated by a small pulley operating on the tire of the rear wheel—an ingenious idea which permits the belt to be readily uncoupled and the machine to be driven by pedal power as usual.

SHOW IN JANUARY

At Madison Square Garden, as Usual— Motocycles to be Featured.

On the principle that it's hard to keep a good thing down, the Cycle Show will not down.

Despite prophecies to the contrary, 1901 will see a show as of old, and at the same old place—Madison Square Garden, New-York.

The dates have already been set. The show will open Saturday, January 12, and close on the following Saturday, the 19th.

This much has been decided; beyond that it is a mere matter of detail and routine, which will rapidly unfold itself and in all probability along the the lines of previous shows.

While the affair will be essentially a cycle show, it will also be open to automobiles

and to the motor industry generally.

It is expected that motorcycles will be the chief feature of the exhibit, and there is small doubt that expectation will not be disappointed. Interest in these machines is increasing at an encouraging rate, and there is no doubt that the show will give them an additional impetus that will carry them well into the channel of popularity.

Addition to Auburn's Industries.

The Auburn Ball Bearing Company has been organized at Auburn, N. Y., with the following officers: Mark D. Knowlton, of Rochester, president; Frederick A. Wiggins, of Auburn, vice-president; Harry G. Latimer, of Auburn, secretary, and John E. Myer, of Auburn, treasurer. The business will be under the direction of Mr. Myer as general manager. Henry La Casse, of Rochester, will be superintendent of the manufacturing department. Ball bearing hubs and wheels of all kinds will be a special feature of the business.

Sowing Solar Lamp Seed.

R. H. Welles, treasurer of the Badger Brass Manufacturing Company, is swinging around the Pacific Coast circle. He is visiting all of the principal centres, and if a good crop of Solar lamps does not follow the Solar seed he is sowing it will be surprising.

Champion Stars at Chicago.

As it turned out, it was the motorcycles that gave the best and most exciting racing at the motor vehicle meet at Washington Park, Chicago. In fact, the races between Champion and Skinner were almost the only real contests of the meet, and they furnished excellent sport for the spectators.

On Saturday the events were enlivened by a dispute over the entries for the "Inter-Ocean 50-mile challenge cup, valued at \$500. One of the entrants, Alexander Winton, protested the other two, Messrs. Champion and Skinner, on the ground that their tricycles were not motor vehicles. The outcome of the matter was the starting of Winton first and the other two men some time later, the idea being to award the cup to the contestant making the best time. This turned out to be Champion, but the "board of stewards" afterward reversed the decision of the judges, ruled the tricycles out and awarded the cup to the four wheeler, as "won in a walkover."

After his defeat by Skinner the first day, Champion got his new two-cylinder Orient tricycle, the first ever used in this country, in good working order, and thereafter was almost invincible. In addition to winning nearly every race he competed in—although frequently by extremely close margins—he gave several exhibitions against time, his best performance being one mile in 1:19 1-5.

The summary of the races in which motorcycles participated, follows:

Thursday, Sept. 20—Fifteen-mile race, fly-

ing start, for motor tricycles. Won by Albert Champion; Kennett A. Skinner second. Time—24:47 3-5.

Friday, Sept. 21—Ten mile; handicap to C. G. Wridgway of one mile by Skinner and Champion; all using motorcycles. Won by Wridgway; Skinner second, Champion third. Time—Wridgway, 15:19 1-5; Skinner, 15:48 3-5; Champion, 15:55.

Saturday, Sept. 22—Ten-mile Manufacturers' race for gasoline vehicles. Won by Albert Champion; K. A. Skinner, second. Time—14:21 1-5.

Five-mile combination race, to respective winners of above ten-mile race. Won by Albert Champion. Time—7:36.

Tuesday, Sept. 25—Five-mile race for tricycles, in two heats. Both won by Champion; Wridgway second. Time—6:50 3-5 and 6:49 1-5.

Exhibition, one mile; Champion. Time—1:19 1-5.

Page Succeeds Southwick.

De Witt Page has succeeded to the advertising managership of the New Departure Bell Company, of Bristol, Conn., filling the vacancy caused by the retirement of F. A. Southwick. Although new to the position, Mr. Page is no stranger to New Departure wares and affairs. He has been connected with the company for years, and consequently knows his book.

"Motocycles and How to Manage Them." The Goodman Co. Price 75 cents.

First of the 1901 Crop.

At this time last season at least half a dozen of the next year's models had seen the light. This year, however, there seems no inclination to "rush the season"; indeed, there is less of it than for several years past, which is a good augury.

So far as known, the only 1901 model that has yet made its appearance is the Pioneer, made by the Huntington (Ind.) Manufacturing Company. It incorporates no striking departures, the alterations being, naturally enough, in detail only. Summed up, they are as follows: Flush joint head sets; new style chain adjuster; new style seatpost adjustment; both wheels are made to take the same cups, cones, balls, axles and nuts and the same length and number of spokes, thus making interchangeability a feature of the machine.

Was a Good Drawing Card.

The noteworthy increase in attendance over previous years which marked the opening of the Interstate Fair, at Trenton, N. J., on Monday last, was attributed to the popularity of the motor vehicle races which were scheduled for that day. More than 10,000 people were present, and they followed the different events with marked interest.

In only one of the five races did motorcycles take part. This was an unlimited pursuit race, and was won by C. S. Henshaw, who caught A. C. Bostwick at two miles. Time, 3:48½.

THAT'S
THE
COM=
BI=
NA=
TION.



ELKES AND THE ORIENT.

BEST MAN × BEST WHEEL = VICTORY.

THEY PROVED IT AGAIN

at Charles River Park, September 22, in the 50 mile race, Elkes once more went romping away from Johnny Nelson, beating him eight laps, and establishing

New Records for the Hour,
and for 30, 35, 40, 45 and 50 miles.

The Wheel that Rides Well, Sells Well, too.

Are You "On," Mr. Dealer?

WALTHAM MFG. CO., Waltham, Mass.

Harry Elkes, in no uncertain manner, last evening clinched his right to the world's middle-distance championship honors, for the second time defeating John A. Nelson, who was conceded to be this year's American champion. He not only defeated Nelson by almost three miles in 50, but also gathered in a few world's records, as well as the American hour competitive record. — *Boston Herald*, September 27.

THE BICYCLING WORLD

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and MOTORCYCLE REVIEW

In which is Incorporated
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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2342.

NEW YORK, SEPTEMBER 27, 1900.

The Tire Disturbance.

It has been one of the unfortunate and distressing peculiarities of the cycle trade and its kindred trades that few of the agreements and organizations to which they have given rise have been of an enduring nature.

It is a matter of history that whenever anything of the sort has been brought into being it has been but a question of time—a short time, usually—when some one, or two, or three, has jumped the traces, violated the agreement and disrupted or upset the compact or organization.

With this unpleasant record and remembrance before us, it is hardly fair to say that the upset of the Tillinghast scale and the consequent upheaval of the tire trade is wholly surprising.

Such disturbances of trade are always regrettable, but, being aware of the tremendous strain under which those who respected

the Tillinghast scale have labored, we were quite prepared for what has come to pass. Their hands were tied by their regard for the agreement, and to be thus unable to meet competition and be compelled to turn away orders was more than human nature could long endure.

The knife-to-the-hilt competition that has prevailed since the break occurred has, however, frightened even the most erring, and it is a reasonably safe prophecy that within a very few days there will be another getting together, when prices will be restored. The rivalry of the last few days has carried suggestions of ruin to some and chastened their spirit and curbed their combativeness not a little.

Those makers and jobbers who are holding back their orders expecting a further hammering of prices are apt to be disappointed. Now is the accepted time in their cases, as they will likely find if they delay much longer.

Reports that jobbers who are loading up at the present demoralized prices in order to unload on the agents if prices are restored are also apt to find a rod in pickle which they little expect. It is not possible to say more of it at this time, but we know whereof we speak when we say that that contingency is being provided for.

It is well that the jobber should not reckon without his host.

Early Birds and Early Worms.

One of the most encouraging signs of the times is the present disinclination of the trade to "rush the season."

THE BICYCLING WORLD has on several occasions pointed out the folly of the policy that has prevailed for several years past; and, whether or not the impending Presidential election is responsible for what some may term the "backwardness of trade," whatever the cause, it is a matter for no small satisfaction.

The almost frantic zeal of some makers to get their new models on the market, even before the old were "done for" for the year, was a species of blind haste that served small purpose, if any. When the next year's models were placed on the market as early as July and August, and travellers sent out to scour the country, as was the case during the last two seasons, it seemed that the rush had reached its limit, and this, fortunately, has proven the case.

It is one of the many signs that go to

prove that the bicycle trade will be conducted on a saner and consequently safer basis.

The early bird business was overdone, and that both the early birds and early worms are now conspicuously absent is cause for small regret.

"Rushing the season" was simply another term for inducing or forcing orders when the purchaser really did not wish to buy and had no license to do so. It caused a deal of this year's overloading.

Buying goods in September for use in April and May may serve in some businesses, but bicycle retailing is not one of them.

It appears the general idea that few bicycle travellers will "take to the road" before November, and we incline to the belief that with the trade in its present state December would be even better. However, it is reasonably certain that early worms are no longer numerous and that the early birds will not find very fat picking. The dealer has had wisdom forced on him, and the carol of the sunrise songster will lack much of the charm it used to have.

Service the Show Will Render.

There has been so little that is really new in bicycles or bicycle construction that of late years, at least, the cycle show has been largely a perfunctory affair.

In this respect the 1901 function, the dates of which have just been set, promises much better than its more recent predecessors.

The motorcycle gives it this promise. It undeniably makes for a renewal of public interest, which is desirable above all else.

With something new to see, the public will talk and become interested, and it is our belief that the 1901 show will prove to be the spigot which will turn the motorcycle interest into the channel that leads to sales and general interest.

The exhibitor who has not a motorcycle of some sort will find himself at a disadvantage and general popularity.

Expecting Too Much.

There is a disposition in some quarters to expect entirely too much of the motorcycle.

Yes, it is a practicable vehicle now, it is said, fairly reliable and satisfactory; but there are plenty of things about it capable of improvement, and it is only a question of time when they will be reached and put to rights. So, why not wait for the perfected machine?

Prices are not unduly high, continue these critics, when everything is taken into consideration. Initial efforts always cost more, and the maker has to take grave responsibilities on his shoulders and incur great risks. But the time will come when prices will drop to one-half or less, and that will be the time to buy.

It need scarcely be said that if everybody took this view the perfecting of the machine and its price reduction would be indefinitely postponed. The surest way to check all progress would be to withhold the incentive to it; and, as everybody knows, this incentive is the reward coming in the shape of orders.

That motorcycles are, comparatively speaking, crude and clumsy and susceptible of much improvement; that they are listed at figures which admit of a reasonable profit accruing to their sellers—these are facts that ought to arouse pleasurable feelings. Not only the makers and the retailers should find cause for rejoicing in this, but the riders as well.

Had the motorcycle sprung into life full grown and perfect, satiety would have come to its users in a very short time. Change or improvement being out of the question, they would soon have tired of the new vehicle.

As it is, there is for its users years of enthusiasm, of pleasure and of instruction in watching—and partaking in—the development of these machines. Step by step they will advance, the users participating almost equally with the makers in suggesting the changes and improvements that will be made. Just so long as one succeeds another will the interest be kept at the high-water mark.

So, too, with the trade. The incessant changes in patterns, the fitting of extras and their change into a part of the regular equipment, the throwing away of tools and dies and parts that are no longer up to date—these will all cost money; but they will bring money in in ever greater quantities.

For the trade will pay but a part of the money for these changes. The bulk of the cost will be borne—and borne cheerfully—by the public. It makes no difference how much was paid for one machine; a better one will be welcomed with acclaim, and the price paid without a murmur.

Instead, therefore, of discussing and hesitating and waiting for the millennium, it would be vastly better to fall in line and take the motorcycle for what it is now; make the most of its many and undoubted excellencies, and get out of it all the enjoyment

that is to be had, letting the future, with its sweeping changes, take care of itself.

Such a change of attitude on the part of that portion of the trade now holding back would serve a twofold purpose. It would encourage the makers to build and the public to buy with vastly more confidence than they have done hitherto.

What is needed is an increase in enthusiasm, a growth of competition. It will come, but the sooner it comes the better it will be.

Where Effort Pays.

While it has been noticed and commented on to some extent, it is doubtful if enough attention has been given to the steady growth of trade in the country districts.

The most fruitful fields are always the ones most assiduously cultivated, consequently they become barren soonest, and only become productive again when given a period of rest. It was so with the cities, almost from the earliest times.

Enthusiasm was soonest engendered, ran highest and cooled most quickly in them; but they are still being ploughed and harrowed and sown with the greater care resultant upon the shrinkage in results.

It is true that the country districts come in for an increasing share of attention every year. But in neither the country nor the city is the attention proportioned to the results. No amount of cultivation will produce larger sales in the city than are now made, while the better showing in the country is due very largely to the increased attention it has received of late.

Every year that passes sees the bicycle become more and more a business vehicle. Where formerly the majority of riders used it for pleasure, or because of the pleasure that its use afforded, even when combined with business, it is now its utilitarian aspect that is most prominent. Its most constant riders are those with whom it takes the place of some other and less cheap or convenient means of transportation.

The shifting process will continue for some time to come. While still retaining a place as a pastime, cycling will become more and more a method of transporting the rider from one point to another, to which he desires to go, for business or other reasons.

Such being the case, it is evident that where the methods of transportation are furthest from the ideal condition, there the bicycle will find its greatest sphere of usefulness. Obviously, this is the case in the country, and there every physically sound person becomes a possible purchaser.

It is equally true that, even yet, the number of bicycles, in proportion to the inhabitants, in the country districts, is very much smaller than in the cities. Consequently, the field is a much more fertile one, the probable sales much larger.

In the last ten years the methods of transportation in the country have remained stationary, while the ability of the inhabitants to purchase bicycles has largely increased, both by reason of greater prosperity and vastly lower prices.

In view of this it is not surprising that sales are still increasing outside of the cities and large towns. The wonder is that the increase has not been greater, and it will be as soon as the same amount of work is spent in the sparsely populated sections as in the more thickly settled ones.

Things are Reversed.

It used to be strongly impressed on the retail trade that, in order to maintain their existence, dealers should add a side line of some kind. An ignoring of this well meant advice could have but one ending—an enforced retirement.

In the opinion of some shrewd observers, however, matters have taken on a changed aspect. Instead of sellers of bicycles needing to take on something to help them through the dull season it is bicycles themselves that will become a side line. Dealers in other lines of merchandise will add them, just as they would add other salable articles.

In other words, from being the dog, bicycles will become merely the tail, and the big merchandizing firms will wag it.

There is some humor, albeit of a very grim nature, and not a little truth, in this view of the case. From the very centre of the front row the bicycle has been forced to take a back seat, and there are not wanting those who prophesy that the retrograde movement will continue for some time to come.

Of course, this depressing belief is not universally entertained. There are still bright spots, oases in the desert, as it were, where the bicycle occupies a prominent place, even if it is no longer king.

And it should be remembered, too, that if there is less business now there will be fewer concerns next year to divide it.

"Cycling Gazette" talks airily of "motor tricycles and motorcycles." Will our Cleveland contemporary kindly inform the expectant trade and public when a motor tricycle is not a motorcycle?

MINNEAPOLIS'S MODEL

Has a Trade Organization of Which it is Proud—How it Operates.

Minneapolis can boast of having one of the best organized bicycle dealers' associations in the country with a membership of more than one hundred, comprising nearly every dealer, repairman and jobber in the city. The officers of the association are as follows: H. S. Haynes, president; J. W. Bates, secretary, and Frederick Roach, treasurer.

In the early spring of each year the members of the association adopt a schedule of repair prices for the coming season, which are universally adhered to by all during the season. A large card containing list of prices is posted in every shop and store, and the old time custom of shopping from place to place by customers looking for a "bargain" in the shape of a repair job has become a thing of the past, which means a great saving of time for both customer and repairman. In fact, says President Haynes, it is seldom that a customer asks the price of a repair job until he calls for his wheel, well knowing there is uniformity of prices throughout the city.

In adopting its schedule of prices the association is as careful not to set the price too high as it is in not getting it too low. The average riders have become accustomed to the uniformity of price, and are better suited, as a rule, than they were when no two shops were charging the same price for the same job.

The Minneapolis jobbing houses who deal in bicycle sundries are all members of the association. The secretary of the association sends them a revised list of members who are in good standing every thirty days, and the jobbers in turn confine their sales to these members, so far as wholesale prices are concerned. The membership is thus maintained. On their part the dealers and repairmen reciprocate by placing nearly all of their orders for supplies with their local jobbers. With the jobbers and dealers working in harmony, one can readily understand why the association is a success and why its members are prosperous.

The members meet every two weeks in a central hall, which they have hired for the purpose. There is always a box of cigars "on tap," and the coming together of the members cultivates an acquaintance and general good feeling which goes a long way toward doing away with the old time custom of "knocking" competitors during business hours. In fact, customers often speak of this in going from store to store; they notice the disposition on the part of the various dealers to speak well of their competitors.

When the association was organized, in the spring of 1898, the charter members were permitted to join at 50 cents each. The charter was left open at this rate for about

sixty days, after which time the initiation fee was set at \$2, at which rate it was held until 1900, when the association voted to raise the membership fee to \$10, which is the present rate.

"As a result of a well organized association," says President Haynes in summing up the benefits, "the Minneapolis cycle dealers, repair men and jobbers are doing a good business, working for the mutual interests of all concerned. Failures in the cycle trade in this city are almost unknown—in fact, it is notable that in the matter of credit outside jobbers and manufacturers take into consideration the healthy condition of our local trade, a condition due largely to the thorough work of the Minneapolis Cycle Trade Association."



H. S. HAYNES.

PRESIDENT MINNEAPOLIS CYCLE TRADE ASSOCIATION.

Counter Suit Follows Acquittal.

Following close on the heels of the acquittal of Oscar Selbach, European agent for the Miami Cycle and Manufacturing Company, of Middletown, Ohio, on a charge of embezzlement, comes the announcement that a counter suit for \$12,500 will be brought. This amount, Selbach claims, is due him for commissions and royalties, in addition to the sum alleged to have been embezzled.

The case has attracted considerable attention, and the end came very suddenly. Briefly, Selbach, in renewing a contract with a German purchaser of the Miami company's goods, claimed that he had to bribe the buyer, paying him \$2,500. This amount he deducted from a payment made by the concern, claiming that he had authority to do so. The claim was disputed, and the suit brought against Selbach, who came from London to stand trial, to recover the amount.

The case came to trial at Hamilton, Ohio, last week, and the prosecution failed to make out a case. Accordingly, after a jury had been secured, and with the State's consent, the Judge instructed the jury to return a verdict of not guilty.

ALIGNMENT IMPORTANT

Part it Plays in the Bicycle and Must Play in the Motocycle.

Perfect and permanent alignment of the chain wheels is now universally recognized as an absolute necessity in the bicycle if economy of power and ease of running are desired. Under modern methods of construction this is a comparatively easy matter of attainment. If the frame is lined up properly at the factory, and the chain stays are strong enough to insure the necessary rigidity, there is never any trouble with the alignment.

When it comes to motorcycles, however, or at least those having more than two wheels, the matter takes on a new aspect. Perhaps the greatest loss of power on most machines is attributable to the fact that two chains are employed, and that these are greatly affected by the swaying of the body of the vehicle.

This means that, as the wheels are bound to maintain a steady position, and as the body swings somewhat sideways and also unevenly, according to the road, and is apt to be more depressed on one side than the other by the disposition of the load, the chains never run really truly over the wheels. What a grave loss this must be in the matter of the utilization of the power of the motor can be realized by any cyclist who has had the misfortune to ride a machine the chain wheels of which are not in perfect alignment.

But in a motorcycle this is even worse, because if the chain wheels on a cycle be not in the same plane they, at any rate, do not vary, so that in time the chain beds itself down more or less—generally less. On the motorcycle, however, this is not the case, because the chain wheels are out of alignment, first in one direction and then in the other, just as the body of the vehicle may sway. It is this fact which causes the chains to wear so badly, and makes the rivets work loose.

The life of a motor chain is very short, no matter how much care be taken of it, but on machines fitted with a single chain it is noticeable that this wear is not so great, because, the chain being placed centrally, the oscillations of the body do not throw it out of alignment to such an extent, although it is seldom running really well.

All this points to the adoption of a type of vehicle in which chains are altogether dispensed with, or to the employment of a separate frame which can be rigidly built up in such a manner that it would be impossible for the chains to run badly.

Bidding Goodbye to Toledo.

The Lozier Motor Company is this week "pulling up stakes" and removing from Toledo to its new plant in Plattsburg, N. Y. Its motor tricycle and steam wagon will be ready for exploitation in about three weeks.

Some Simple Precautions.

Although cyclists are now comparatively free from the annoying accidents that formerly beset them, and, in consequence, frequently go entirely unprepared for them, they are sometimes obliged to pay dearly for their temerity. The carriage of a wrench and pump would seem to be the simplest and most necessary precaution, but very often it is not taken, and the rider is frequently left helpless in the face of the most trivial incident—one that could be put to rights in a minute had these useful articles been brought.

Such things as an extra chain link or a spare nut or two sometimes prove to be a blessing of very large proportions. Or, failing these, two very useful articles for cyclists to have are a wire nail and a small piece of copper wire. In the event of a broken rivet in the chain, the nail slipped in in place of the rivet and bent over will often serve to make a temporary repair of sufficient strength to carry the rider many miles. The copper wire is always handy in case of a broken saddle spring, or similar occurrence, allowing the broken parts, in conjunction with a splint of wood, to be firmly bound together. Even in case of a broken handle-bar, a jury handle-bar can be rigged up by means of a wooden support, bound thereto with copper wire, of sufficient strength to permit the rider reaching home, the nearest cycle repair shop or the railway station.

Thinks Election Stayed the Rush.

Talking of the present indisposition of the trade to "rush the season," in contrast to the feverish efforts of previous years to get the new models on the market at the earliest moment possible, J. Lovell Johnson, of the Iver Johnson Arms and Cycle Works, who was in New York this week, remarked that he did not think it altogether due to a spirit of trade reform; he thinks rather that the impending Presidential election is largely responsible for it, and inclines to the belief that, now that it has settled down, the cycle trade, in common with all other industries, will hereafter be influenced and affected by such movements much more than in the past.

While he stated that the Iver Johnson 1901 models were well advanced, Mr. Johnson said nothing of the model with a motor on it which trade talk credits the big Fitchburg plant with harboring; he did, however, let drop a few words that left the impression that the trade talk in question was not wholly empty gossip.

Osborn Out; Banta In.

H. J. Banta, long with the Waltham Manufacturing Company, has engaged with the Iver Johnson Arms and Cycle Works. He succeeds to the position in the Johnson sales department at Fitchburg formerly held by L. E. Osborn, who has returned to his old love, the Western Wheel Works.

"Motocycles and How to Manage Them." The name explains the nature of the book. Price 75 cents. For sale by The Goodman Company. * * *

To Revolutionize Steel Industry!

According to dispatches from Indianapolis, Ind., M. B. Depoy, residing at No. 4852 Fletcher Avenue, that city, has invented a process, after thirty-two years of study and experiments, that will revolutionize the manufacture of steel. With the new process, the inventor says, any piece of steel may have its tensile strength increased from 40 to 75 per cent. It can be made so hard that no tool will scratch it, and only a diamond can be used to cut it. Yet it cannot be cracked or broken by impact. The harder the steel is made the greater its tensile strength becomes.

A piece of cast iron, Mr. Depoy says, may be welded as easily and securely after treatment in his solution as the best Norway or Sweden wrought iron, and any tool formed from cast iron by the regular casting process may be tempered so that it will carry an edge superior to the steel now manufactured by the best known processes. This means, he says, that tools that must have the keenest edge and the greatest tensile strength can be manufactured after having been cast from the cheapest iron on the market.

One of Mr. Depoy's experiments was the manufacture of a razor from a wire nail of the 20-penny size. It was first made into knife form, ground and then tempered, and it has been used in shaving with as much success as the best razor manufactured.

Some Stearns Plans Unfold.

The report published in last week's BICYCLING WORLD that E. C. Stearns, as the head of the million dollar Stearns Automobile Company, had acquired the American rights of the Anglo-American Rapid Vehicle Company, is confirmed. The company, of which Mr. Stearns is president and general manager, and W. W. Gibbs, of Philadelphia, vice president, will manufacture in the former Barnes Bicycle Factory in Syracuse, making gasoline vehicles exclusively. The Stearns Steam Carriage Company, an entirely separate concern, will make steam vehicles in the Frontenac Bicycle Plant, also in Syracuse.

New Method of Welding.

In a lecture delivered recently before the Congress of Saxon Associations of Engineers at Leipsig Max Schlemann described a new process of welding based on the Goldschmidt process for obtaining high temperatures. Powdered aluminum and iron oxide are mixed together and added to an easily ignitable substance. This powder is put into a clay crucible, and then ignited by means of an ordinary match. The resulting chemical action renders the mixture liquid. This liquid is poured around the surfaces to be welded. The metal soon assumes a white heat, and the surfaces may then be pressed or hammered together in the ordinary way.

"They will adorn your 1901 models and not fracture your bank account" is the modest way in which the Record Supply Company, Boston, drops a hint as to the attractive figures they are quoting on Sidwell and Bennett pedals.

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(October 3d)

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Automobile Publication

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PIRRONG'S OPINIONS

Sees a Good Season Ahead and Thinks Coaster-Brakes are out of it.

Among the trade visitors in New York last week was W. H. Pirrong, he of the Standard Welding Company, Cleveland. He had about completed a tour of the Eastern manufacturing centres and appeared to be feeling particularly good. The reason for it came out in his reply to the query, "How's business?"

"Business?" he said, in a satisfied tone. "Well, I think I've about skimmed the cream of it in our line."

"How are the makers buying?"

"Conservatively; very conservatively, indeed."

"Were you able to get a line on outputs for next year?"

"I found that most of the makers were taking the mean of the 1899 and 1900 outputs as the basis for next year. Thus, if they made 15,000 bicycles in those two years, they were figuring on 7,500 for next season."

"How about carried-over stock?"

"I don't think there's as much of it as is generally supposed. I found some factories pretty well cleaned up, others appeared to be comfortably fixed in over-stocks."

"What of next year?"

"I think the trade is due for a good season. How do I figure it? Well, this year we had a late spring and a hot summer, but we are already having a touch of winter. It will set in early, and that means an early spring, and as surely as it comes as surely will people buy. Another thing: The coaster brake has shot its bolt. There'll be a slump in them next year. I tell you they have caused more trouble and more accidents than some of you imagine. Riders are commencing to find it out, and are taking the thing off their wheels."

When the assertion was doubted, Mr. Pirrong stood by his guns.

"No, sir; I know what I'm talking about. I know at least 600 people that have taken coaster brakes off their wheels. Five of them live in the same block with me. The coaster brake hurt the sale of new wheels this year, but it won't be much of a factor in the future, mark my word!"

When the talk drifted to the Standard Welding Company's productions, Pirrong was in his element. The manner in which he can dilate on the benefits and economies of welded tubing, forksides, scatposts and the other articles is something of a treat to listen to. He has a fund of argument that seems unanswerable.

Before the talk ended, he remarked how the forward extension handle bar had played havoc with the cheap bicycle. That type of bar brings great strain on the head, and Mr. Pirrong asserted that comparatively few cheap wheels had been able to stand up under it.

Pratt Combines Rifles and Cycles.

The contract of J. Elmer Pratt as sales manager of the American Bicycle Company's Grand Rapids factory expiring on the 1st inst., the energetic Pratt lost no time in establishing himself elsewhere. He quickly consummated what he had had in view for some time—the organization of the Rapid Rifle Company, Limited, of Grand Rapids.

The articles of association, as filed, show the objects of the company to be the manufacture and sale of air guns and bicycles. The capital stock is \$8,000, of which \$2,000 is paid in. The stock is held as follows: J. Elmer Pratt, \$3,900; Morton H. Luce, \$4,000, and Arend Klaasse, \$100.

They will acquire an already established air gun factory in Grand Rapids, and begin business at once. Like Pratt, Mr. Luce was formerly identified with the Grand Rapids Cycle Company; and the fact that they are still to retain connection with the cycle trade will be pleasing news to many, for few men were better known or better liked or did better work than this same Pratt.

It is Pratt's intention to market the guns largely through bicycle travelers and bicycle dealers. It will afford them a side line that at the Pratt terms should prove an attractive one.

The Veteran Zacharias Succumbs.

An assignment for the benefit of creditors was made on Friday last by Zacharias & Co., the well known dealers of Asbury Park, N. J. J. Otto Rhomo, of Asbury Park, was appointed assignee, and John D. Martin, of Plainfield, has been placed in charge. A statement of assets and liabilities is being prepared. It is not thought that the firm will resume.

The failure was not altogether unexpected, as the firm's business was known to have undergone a shrinkage. An assignment was made several years ago, when the firm was Berrang & Zacharias, but business was resumed; then came an attempt on the part of Berrang to force the concern into bankruptcy again, but it was unsuccessful, and Berrang retired. Mr. Zacharias was one of the first dealers in the bicycle field, the firm of Zacharias & Smith, of Newark, later Howard A. Smith & Co., doing an extensive jobbing business in sundries in the early eighties. Upon his retirement from this firm, Mr. Zacharias, who is highly esteemed by his associates, devoted himself to telegraphing, being the manager of the Western Union office at Asbury Park.

Increased from \$6,000 to \$100,000.

The capital stock of the Stearns Bicycle Agency of Syracuse, N. Y., has been increased from \$6,000 to \$100,000. The increase is made in order to give wider scope to the company's business of wholesaling and retailing bicycles and bicycle sundries.

Recent Incorporation.

Buffalo, N. Y.—Erie County Tire Inflating Company, with \$10,000 capital. Directors—Maurice B. Patch, Thomas W. Symons, William P. Smith, Ansley D. White and John Laughlin.

CHAINLESS FITTINGS, NOW

The Geniuses who Made the Bevel Gear Possible, Increase Their Scope.

The people who made the bevel gear a success, the Leland & Faulconer Manufacturing Co., Detroit, Mich., have made another move calculated to make the success more sweeping. They will not only furnish the gears themselves, but will now supply the complete fittings to go with them.

While it was known that they were working along that line, it is only now that the announcement may be made authoritatively.

Some of those in the trade who have seen the fittings pronounce them magnificent creations, both in design and execution; their simplicity and the readiness with which they can be applied and adjusted to the bicycle are impressive features which are heightened by the superb finish; in fact, it is described as just such work as might be expected of the people who made the impossible possible, for it is not to be forgotten that until Leland & Faulconer designed the machinery and produced the gears, the mechanical wise acres proclaimed that it was simply impossible to cut bevel gears out of hardened steel; they asserted that it can only be done by hand work on soft metal, which would then warp in the hardening process.

When the Detroiters demonstrated their unqualified success, they entered into close contract of some sort with the Pope Manufacturing Company, and to use the gears it was thereafter necessary to secure a Pope license, although R. L. Coleman, now president of the American Bicycle Company, and then the head of the Western Wheel Works, snapped his fingers at it and made chainless bicycles regardless of the Pope rights. The Pope-Coleman interests finally effected an amicable arrangement, and later both were absorbed by the A. B. C. About that time a cheaper bevel gear was found, and although nothing was said of it, the Leland & Faulconer article was practically "shelved." Comparatively few dealers knew of the substitution.

That such a grand article should receive such treatment has astonished not a few. It doubtless spurred Leland & Faulconer to greater efforts, and their bevel gear fittings is the result. Those who know the circumstances cannot but hope that the venture will reap the full reward it merits.

Old Timers Reorganize.

Under the title of the Martin-Koehler Sporting Goods Company, of Newark, N. J., the business of the well known Keer & Martin Cycle Company will be absorbed, and a more decided push on sporting goods of every character made. The officers of the new company are Frank L. C. Martin, president; Frederick Keer, vice-president, and Herman J. Koehler, secretary and treasurer.

Fisk Tires

THE MAKING OF TIRES

is decidedly an art—that is, the making of good tires. Good, pure rubber and high-grade fabric is but one-tenth of the recipe; the other nine-tenths is the “know how.”

The best rubber experts in the country are in charge of the making of the Fisk Tires—men who have spent the greater part of their lives handling rubber, studying the tire problem, determining just the proper combination of rubber and fabric and in learning to “know how.”

The result is that Fisk Tires are not experiments and every tire leaving our factory will give a good account of itself under reasonable use.

FISK RUBBER COMPANY,

CHICOPEE FALLS, MASS.



HAWKINS

1123 BWAY NY



Sidwell and Bennett PEDALS.

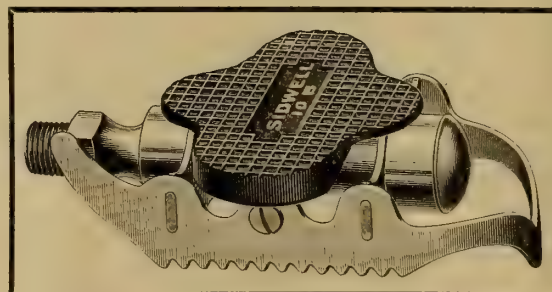
Quality, Elegance of Design, Mechanical Excellence and Stylish Finish characterize BENNETT and SIDWELL PEDALS. They Will adorn your 1901 models and not fracture your bank account. : : : :

LET US QUOTE YOU.

RECORD SUPPLY CO.,

170 SUMMER STREET,

BOSTON, MASS.



WON'T STAND PROBING

**Superiority of Early Tires a Delusion—
Some of Their Faults.**

It is, of course, natural to look back to the old days with regret, and to invest them with excellencies that do not belong to them of right. Time tempers all things, and the shortcomings that were so glaringly manifest years ago are now viewed in a mellow light that robs them of much of their harshness.

It is not surprising, therefore, that an English writer should thus compare the old with the new, much to the latter's disadvantage:

We think there is very little doubt that the quality of the rubber used in even the best tires to-day is not what it was in the earlier stages of the industry. At any rate, we never see rubber used on tires to-day which has the fine and eminently unmistakable appearance of pure rubber, which was a characteristic of the original Dunlops.

Doubtless the makers consider that in the special mixings which they now use they get something which gives them better results, but a reader this week sends us a very striking example of what tire rubber was in 1894 and what it is to-day. He sends us a piece of a cover purchased by him in 1894, and only discarded after five years' constant wear. Although the non-slipping pattern is in places almost entirely worn away, the rubber is smooth and soft in texture, tough and elastic. He also sends us a piece of the cover of a tire of the same make with the same pattern tread, which after two years' constant use from 1896 broke all up and left the canvas. This rubber is rough and granular, is split in several directions, and has absolutely no elasticity or toughness left. A pull at any part simply serves to break it up into bits.

Our correspondent adds that his son and two friends of his had new machines this year fitted with tires of the same make—one of the best in the market—and although these have not been used more than four months, they are virtually already worn out.

To the testimony thus borne in favor of the quality as well as the quantity of rubber incorporated in the old tires those whose recollections go back that far will yield a hearty assent. Both attributes stood out prominently. The rubber in the outer covers of the old rag Dunlops, for example, possessed a soft and "rubbery" feeling the like of which has not been seen since. And the amount of rubber contained in a cover! It was well nigh half an inch thick, and possessed a cushioning power that was marvelous.

But there is another and much less alluring side to the picture. Much as the cycle of to-day is superior to its predecessor of half a dozen or more years ago in the matter of breakages and minor troubles, the improvement is slight compared with that which has taken place in tires. As far as their construction is concerned, the latter have ceased to give any trouble worth mentioning. But the early tires had faults that tried the patience of the most Joblike maker, dealer or rider.

The greatest trouble was with the fabric. The amount of money that was lost in solving the problem of making fabric that would do its work in an acceptable manner would supply the entire tire trade at present with profits for a number of years to come. In every manner that it possibly could the fabric went wrong. It chafed, it split, it burst, it came loose from the rubber tread; and for a long time no amount of study revealed the trouble or provided a remedy for it. It was only after a number of seasons had passed that sufficient experience had been gained to locate it.

It was almost as bad with the rubber tread. Here it really seemed as if the chief trouble was that the quality of the rubber used was too good. It would cut and puncture very easily, become ragged on the edges and come off in chunks at any severe application of the brake. Whether, as one prominent manufacturer claimed in the case of solid tires, the rubber was of too good a quality will probably never be known. But, at any rate, the improvement that soon took place was accompanied with a deterioration in the quality of rubber used.

It is not at all unlikely, therefore, that the pleasant belief that the old tires were superior to those of to-day is considerable of a delusion. This fact would be better appreciated could a tire of the old vintage be placed alongside one of the present productions and a comparison drawn. It would be instructive, at least.

Meyercord Scores at Paris.

While Paris Exposition awards were handed out with such a liberal hand as to make them of small intrinsic value, the Meyercord Company, of Chicago, write that they received not only the highest award at the Exposition for decalcomania transfers in competition with foreign manufacturers but the only one given in that department at the entire Exposition. In addition to receiving this recognition they report having booked many thousand dollars' worth of foreign orders and established permanent branches in almost all the European countries. These facts recall that it was only a few years since that American "transfers" were practically unknown; certainly, none was considered of much value, Germany practically controlling the trade of the world.



THE STAR PUMP CONNECTION.

Never Leaks. Always Ready.
Always Reliable.

It is a favorite with the dealer and repairman wherever used.

DEALERS AND REPAIRMEN
should order for their own use

Our Star Connection with the thread end made from Tool Steel Hardened. This is important where many tires are inflated each day. Steel point connections, 35c. each, postpaid.

PARK CITY BRASS CO., Springfield, Mass.

1892

1901

(Oldest Pedal Manufacturers in America)

We are still doing business at the old stand and propose continuing to do so for sometime to come

Curtis Pedals

FOR

1901

Will maintain the reputation they have always had ♣ That's the best we can say for them ♣ ♣ ♣ ♣

We are now ready to talk prices ♣ and make contracts ♣ ♣ Are you? ♣ ♣ ♣

Reed & Curtis
Machine Screw Co.
WORCESTER, MASS.

CHAINLESS EXPERIENCE

Views of Another Veteran who has put the
Wheel to Tests That Tell.

To the Editor of THE BICYCLING WORLD: I have read with much interest the article in your issue of the 20th inst. I am a chainless rider myself, this being my second season. I own and ride three Warwick special chainless bicycles, all made to order, and equipped with the Leland & Faulconer bevel gears. The first one, received on June 10, 1899, was a full roadster, weighing thirty-two pounds, and geared to 82 inches. It has since been ridden sixteen thousand miles, including twenty-two centuries. It was used all last winter in sun, rain, mud, etc., and although I have loaned it to many acquaintances by the week its condition to-day is as good as new.

The second, received on March 24, 1900, was full nickelled and gold trimmed (a special order), weight twenty-eight pounds, gear 82 inches. This has been ridden fourteen hundred miles, and used as a first class touring light roadster, and is to-day as if brand new.

The third, received on August 7, 1900, a chainless racer, is, I think, the lightest in America for strictly road use. The frame is of white enamel, gold striped, with vermilion head, rims and rear gear case; 20-inch frame, 92-inch gear, 1¼-inch Palmer racing tires, racing rims, 7-inch cranks; weight, all ready for road, 24½ pounds. This has been ridden twelve hundred miles over good, common roads, and to-day is in A1 condition. I have found it very speedy, being able easily to ride twenty miles an hour for several hours, and have actually hung on to motors on the road.

The light chainless will doubtless be the wheel next year. The only fault I find is that it is too swift at first; "give it an inch and it takes an ell," and if one exerts his full strength it requires very close watching to prevent the machine from running away on even a little incline.

I am, like the gentleman mentioned in your article, an old rider, having begun in 1881, and I went down the scale from the "good old ordinary" to the Star, the Eagle, the Springfield, the tricycle, the Kangaroo, etc.

In 1893 and 1894 I rode two chainless front drivers, or "geared ordinaries," and even then claimed the advantages of the chainless; but I went back in 1895 to chain wheels, only to join the chainless ranks again.

I know I am using your valuable time, but perhaps my "fellow chainless" in your office will take pleasure in reading an indorsement of his opinions. This is not an "ad. in disguise," but a friendly letter, and I would like to know the name of his wheel.

With best wishes for your paper's success from an old reader, and hopes that I shall always find your pages as bright and interesting as in the last fifteen years, I am,

Frank A. Wade.

Cambridgeport, Mass.

[The wheel ridden by THE BICYCLING WORLD man is a Clipper, made by the

Grand Rapids Cycle Company before it was absorbed by the Trust and its manufacture practically discontinued. As the American Bicycle Company has also "shelved" the Leland & Faulconer gear and is using a different article, the experience detailed last week can naturally apply directly only to the Leland & Faulconer invention.—The Editor.]

The Week's Exports.

The present was another light week in the matter of cycle exports, Great Britain and her colonies taking the only shipments of any considerable proportions. The record for the week which closed on September 25 follows:

Antwerp—4 cases bicycles, \$100; 1 case bicycle material, \$10.

Azores—2 cases bicycles, \$40; 4 cases bicycle material, \$44.

Alexandria—1 case bicycles, \$47.

British Australia—12 cases bicycles, \$346; 67 cases bicycle material, \$3,047.

British East Indies—3 cases bicycle material, \$241.

Brazil—1 case bicycles, \$20.

British West Indies—47 cases bicycles, \$1,052; 6 cases bicycle material, \$211.

Bremen—1 case bicycles, \$28; 4 cases bicycle material, \$200.

British possessions in Africa—16 cases bicycles and tools, \$1,251; 1 case bicycle material, \$28.

Cuba—2 cases bicycles, \$115; 2 cases bicycle material, \$48.

Ecuador—1 case bicycle material, \$10.

Glasgow—7 cases bicycles, \$150.

Hamburg—23 cases bicycles, \$498; 4 cases bicycle material, \$257.

Havre—27 cases bicycles, \$618; 6 cases bicycle material, \$105.

Liverpool—105 cases bicycles, \$1,528; 2 cases bicycle material, \$400.

Lisbon—5 cases bicycle material, \$250.

London—140 cases bicycles, \$1,503; 20 cases bicycle material, \$275.

Norrköping—1 case bicycle material, \$75.

Porto Rico—1 case bicycles, \$25.

Portuguese possessions in Africa—1 case bicycles, \$30.

Peru—1 case bicycles, \$68.

Stockholm—4 cases bicycle material, \$332.

Southampton—1 case bicycles, \$30; 5 cases bicycle material, \$180.

San Domingo—1 case bicycles, \$76.

Stettin—1 case bicycles, \$50.

Siam—1 case bicycles, \$50.

Trieste—1 case bicycles, \$75.

Tasmania—2 cases bicycles, \$44.

Venezuela—1 case bicycle material, \$19.

Take Warning.

An Albany, N. Y., bicycle firm, Nichols & Egnor, was swindled out of a pair of Hartford tires last week by a clever operator. What purported to be an order for the tires from a well known business man, a customer of the firm, and written on the former's business paper, was presented and duly honored. A bill was sent and the next day the supposed purchaser called to see what it all meant. Of course, he knew nothing of the matter, did not want the tires and had never seen them.

EDITORIAL SENSE

Rochester Paper on the "Decline of Cycling"
—Right View in the Right Light.

In its space-filling possibilities the "decline of the bicycle," so called, is a subject of almost inestimable value to the daily papers. Not since the days when it began to make its great stir in the world has the bicycle been so much discussed, albeit it is this time in a deprecatory tone that it is spoken of.

Of course, the bulk of the critics are firm in the conviction that the said decline has actually set in; while many of them have grave doubts of its being checked before the sport has quite petered out. Occasionally, however, instead of joining in the hue and cry, a journal is found to take a common sense view of the subject and point out the difference between a subsidence of the "craze," such as has actually taken place, and a complete disappearance of the bicycle, such as is freely prophesied.

Of this class is "The Rochester (N. Y.) Democrat." After touching upon the necessity of reading between the lines when taking up the matter of exports, "The Democrat" goes on to say editorially:

"But it would not be strange if full and accurate statistics should show that the bicycle is not in such general use among some classes as it was a few years ago, when it was a novelty and a craze with all phases of society. At one time it was as popular in fashionable society as the automobile is to-day; but society has mostly abandoned the use of the wheel, though it is not improbable that for every one discarded by those who formerly rode merely for pleasure or because it was the fad of the day half a dozen have been put into use for business.

"There is no danger that the bicycle will disappear from our streets and highways. It is no longer a toy or merely a pleasure promoter, but a business vehicle. In its present construction it has come as near complete simplicity combined with utility, it is probable, as any vehicle that ever will be constructed. Its immense value in expediting and easing the transportation of one's person is such that the world can no more afford to do without it than it could now afford to dispense with electric light and power or any other essential feature of modern life.

"It is a mistake to assume that the bicycle is no longer employed as an instrument of pleasure. Thousands use it for excursions into the country and the parks. For others it is chiefly a means for taking exercise and maintaining health by taking them into the open air and sunshine; but the principal use of the bicycle from now on will be for business purposes.

"It is of no consequence to the multitude whether the few who are the devotees of fashion, and who flit from fad to fad with frivolous inconstancy, ride the bicycle any longer or not. The masses of the people find in it an instrument which ministers to their convenience, comfort and pleasure, and they will continue to use it. There are undoubtedly more wheels in this city to-day than ever there were before, and there seems to be no reason why their number should not continue to increase, unless our young people propose to degenerate into sickly house plants, of which there are at present no signs."

FULL OF FAITH

This Dealer Refused to be Frightened and Sees His Life's Work Ahead.

Not the least remarkable circumstance connected with the "slump," and one that has been frequently commented on, is that in each branch of the trade there are to be found many concerns that have little to complain of. They have apparently trimmed their sails to suit the prevailing winds, and manage to extract considerable comfort from the sum of their transactions.

A striking example of this is found in a conversation had with the head of a manufacturing, supplies and repair establishment located on the Boulevard, New York. His views are the more remarkable because of the general belief that concerns of this class had been the hardest hit of all—a belief that has undoubtedly much truth in it. He is reported as saying:

"We are still in it. I mean that, despite the decline in the popularity of wheeling—which every intelligent observer must admit—our business has its compensations. The automobile keeps us busy.

"We note only a very moderate decline in the volume of our business from last year and 1898. A year and a half ago, when bicycling first began to show signs of decadence, a friend of ours said: 'Pull out of the thing while you can do so, with profits still showing on your books. A year from now you will "go broke" if you don't!' And I was half inclined to act on his advice.

"But my two brothers said 'No.' They felt that the bottom had not wholly dropped out of the bicycle boom. So we stuck—and I'm glad of it now. But it took nerve and capital. Fortunately, we had some of both.

"Why, one Sunday back in June, 1896, I stood in the door of my shop one forenoon and in one hour by my watch I counted 11,143 wheels going northward on the uptown side of the Boulevard. How many there were on other popular thoroughfares in New York I can only conjecture. But in pumping, repairs, sales of incidentals, etc., the Sunday business in those days used to amount to nearly \$200—and it was a cold day during the week when we didn't sell \$600 in new and second-hand wheels.

"Now the business has dwindled to a mere fraction of that, but it has bigger profits. We make wheels to order, and at least two-score of customers give us standing orders every fall to make them up new wheels for delivery in March or April, and this keeps our men at work steadily all winter. We take the old wheels and sell them on commission. This is a pretty business in itself.

"But the one thing that keeps our courage up in the face of the big slump in wheeling is the great—I might almost say, tremendous—interest in the automobile. In the pumping, repairs, renovation and decoration of these machines we keep fully half a dozen

men busy all the time; and this, too, in spite of the liberality of the New York manufacturers.

"At present they are competing for business so sharply that every concern will agree, when making a sale, to keep the machine in repair for at least one year; but it isn't always handy to go back to the factory for repairs, and we catch this business. A year from now the manufacturers won't be so liberal, and firms like ours will get the cream of the automobile repair business. Even now we are taking orders to make special designs in the vehicles.

"Oh, no! The bicycle business hasn't gone to the demnition bow-wows just yet. It will revive again, mark my word. And concerns that keep up with automobile development won't ever lack for business. It's simply a matter of keeping up with the times. I'm thirty-eight years old, but, upon

MORGAN & WRIGHT TIRES
ARE GOOD TIRES
 ONLY WAY TO CURE
 SOME LEAKY TIRES IS
 TO PUT INNER TUBES IN
 THEM, THUS MAKING
 THEM DOUBLE-TUBE TIRES
MORGAN & WRIGHT
 CHICAGO

NEW YORK BRANCH: 214-216 WEST 47th ST.
 BOSTON BRANCH: 80 BATTERY MARCH ST.,
 Near Fort Hill Square.

my word! I expect to be inflating and repairing balloons right here in the Boulevard before I die. The world moves, and my brothers and I are making a big bluff at keeping up with it."

From McCormack to Melrose.

The patents and business of the McCormick Manufacturing Company, of Philadelphia, manufacturers of the McCormick bicycle package carrier, have been purchased by C. L. Miskell and J. S. Kelley, trading as the Melrose Manufacturing Company, of Oakville, Conn.

New Firm Will Reach Out.

A dissolution of the firm of Northway & Kingsbury, makers of the North King and Pilot bicycles, is announced, Kingsbury retiring and Northway continuing the business. In addition to manufacturing for the local trade as heretofore, an effort will be made to secure outside business in these machines.

HARRY ROUSE DEAD

Another Veteran of the Trade Passes Away—A Victim of Typhoid Fever.

After a short illness, and as the result of an attack of typhoid fever, Harry G. Rouse passed away at Peoria, Ill., on Sunday last. He was forty years of age.

At the time of his death Mr. Rouse was still in the trade, although no longer a prominent figure. After the failure of Rouse, Hazard & Co., more than a year ago, a reorganization took place, Mr. Rouse starting one concern and Mr. Hazard another. The operations of both were to a large extent confined to Peoria, although Rouse & Co. did some manufacturing for outside trade.

To his being one of the early pioneers—both of the pastime and of the trade—Harry G. Rouse owed his chief title to fame. One of the charter members of the League of American Wheelmen, being chosen one of the two directors for Illinois, he took an active interest in the organization for many years, and always retained his membership.

It was in the trade, however, that his greatest usefulness was to lie. It is not easy now to make plain the position held by Rouse, Hazard & Co. in the early days. They were a power in every branch of the trade. They were best known to the rank and file as big retailers, whose specialty was in dealing with obsolete and second-hand machines—this before A. W. Gump & Co. appeared on the scene. But they were much more than this. They were sales agents in four States for Gormully & Jeffery and the Western Wheel Works, and each year disposed of thousands of their machines.

They gradually withdrew from the retail trade and began to manufacture, the Overland and, later, the Sylph being their principal machines. Reverses in this line consequent upon the slump of a few years ago, preceded by unsuccessful litigation, brought about their embarrassment. A reorganization took place, as previously stated, but the firm ceased to be a factor in the trade.

Personally Mr. Rouse was much liked. Reserved and self-contained, he was most appreciated by those who knew him best. The reverses that overtook him were felt keenly by him and deplored by his agents, to whom he endeared himself greatly. He was devoted to his business, and thought no exertion too great if it served to advance it.

Holley Raises His Price.

The Holley Motor Company, of Bradford, Penn., has found that it costs more to turn out its motor bicycle (illustrated in THE BICYCLING WORLD two weeks ago) than originally anticipated; accordingly the price has been raised from \$150 to \$200. The Holley people also mean to furnish motors and motor bicycle fittings, both finished and in the rough.

SOUTH AFRICAN TRADE

Big Revival Confidently Expected—How Best to do Business There.

When the war in South Africa is brought to a close it is freely predicted that a great wave of prosperity will sweep the country and a renewed and enlarged demand for anything and everything set in, bicycles, among the other things. The English press appears cocksure of it, and displays something akin to anxiety in its urgings that the home merchants not permit the Yankees and the Germans to get the start of them in the rush for South African trade that is expected.

That the Germans really are preparing for something of the sort the German press makes plain. The papers are all urging on their exporters and pointing out the best way to obtain the business. One of these papers goes so thoroughly into the subject that its information cannot but be of service to American exporters. It says:

"The influx of commercial travellers from Europe and America into South Africa has been especially noteworthy of late years. In 1898 about three hundred licenses were granted to commercial travellers in the Cape alone. Although commercial travellers enjoy certain privileges on the railways, inasmuch as they may travel first class at second class rates and are granted reductions in respect to their luggage, yet their expenses are as a rule fairly high.

"The cost of license in Cape Colony is £25 (\$121) annually; in British Bechuanaland £10 (\$48); in Natal, from January 1, 1899, £10. Some German firms have already adopted the system of other competing countries and pay the agents who introduce their goods a fixed salary besides commission, with additions for travelling, advertising, etc. Travellers for single firms or for combinations of firms have to be supported liberally by their principals if they are to be successful. The South African Commercial Travellers' Association was recently formed in Cape Town to protect the interests of travellers; its members soon numbered three hundred.

"The travellers of larger houses as a rule visit only important wholesale and importing firms; these are situated principally at the ports and in some of the larger inland towns. Owing to the keenness of competition, some commercial travellers have sold goods on credit to small inland firms; but there is considerable risk about business of this kind, as many of the smaller firms are not supported by sufficient capital and are too ready to engage in larger transactions than their means justify, and it is not advisable to depart from the usual plan of selling only to importing firms or agents. The usual tour of commercial travellers in South Africa is as follows: Cape Town, Port Elizabeth, Graaf Reinet, Middleburg (Cape Colony), Grahamstown, East London, King

William's Town, Queenstown, Durban, Pietermaritzburg, Pretoria, Potchefstroom, Kimberley, Bloemfontein, Beaufort West, Cape Town, or in the inverse direction, direct from Cape Town to the north and back by the eastern route. Many commercial travellers start from Delagoa Bay and visit the Transvaal before going south. Expenses amount to from £2 10s. to £3 (\$12 16 to \$14 59) per day along the lines of railway, and are correspondingly more on other routes.

"Commercial travellers and representatives should be furnished with complete assortments of patterns and samples. The more familiar types meet with ready sale. The establishment of sample depots is said to answer. Americans, especially, attach importance to exhibiting their samples to advantage—for example, machines and agricultural appliances are shown at work whenever practicable. Although the outlay in establishing such depots is often very considerable, they are as a rule remunerative if they are intelligently and energetically managed. In this respect, as well as in the selection of agents and representatives, economy is a mistake.

"Great attention should be paid to advertising, which plays a great part in commerce in South Africa as well as in other English-speaking countries. Poorly prepared placards and catalogues say little for the goods they refer to and their manufacture. Exporters should, like those of other countries, send suitable circulars or cards with each consignment of goods, when the nature of the goods allows of this course. Advertisements for outside of buildings, etc., should be weatherproof and made of sheet iron or similar material. Catalogues and price lists should be well printed and on good paper, and if provided with illustrations these should be printed in the best style. An importer will not throw aside a well-prepared catalogue, but will keep it for frequent reference, so that a durable binding should be provided.

"Price lists, catalogues, etc., of whatever kinds, should be drawn up in English and German. If they are intended to reach the Boer population, the 'Taal' (Dutch African dialect) should be used. All these points, on which local representatives—knowing the country well in each particular case—would be able to give the best information, should be scrupulously observed by manufacturers and exporters, or their interests will suffer and the work of their agents be rendered difficult or impossible.

"Complaints are frequently heard of careless and faulty packing of goods ordered. The following rules should be observed:

"Packing should never be left to inexperienced hands, and should be effected in exact accordance with the wishes of the customer, and only such material as he specifies should be used to fill the interstices between the articles in a package. If, for example, an importer requests that bottles of acid should

be packed in carbonate of lime, it will not do to pack them in shavings. Only good, strong boxes should be used for packing, about forty or fifty inches square, and under no circumstances should boxes be selected which are too large for the goods they are to contain, and empty spaces should always be avoided. Several smaller boxes are preferable to one large one. At port towns there are facilities for unloading, etc.; but packages have often to be sent long distances in the interior by wagon, when they are subjected to rough handling.

"The external covering of the goods in the boxes should be as far as possible waterproof, and each separate package should be wrapped in good packing paper. The articles themselves should, whenever practicable, be packed in cardboard boxes and the like; for example, knives and scissors should be fastened on cards instead of being wrapped in untidy-looking brown paper. Articles got up in this way are more attractive to buyers, and remain presentable, even though subjected to frequent handling.

"Terms on which business is done vary in South Africa as in other countries. Credit of from three to six months is as a rule accorded to firms of good reputation. Some houses settle against bills of lading at thirty, sixty, ninety or one hundred and twenty days' sight; others pay cash through German or English houses on sale of the goods. The amount of credit to be given should, of course, be regulated according to the circumstances of each case, and manufacturers who have never before done a direct export trade to South Africa should make a thorough study of the market and all relative circumstances, or else leave direct trade to experienced exporters. The chief point is, and always will be, to supply the customer punctually and rapidly with the exact article he requires and in the exact way he prescribes."

Demonstrations on the Spot.

For some little time the Waltham Manufacturing Company has had in contemplation the establishment at its factory at Waltham, Mass., of a sales and display room for its Orient product—bicycles, motorcycles and automobiles. It was also the intention to provide means for the practical demonstration of the running of the various machines.

These plans have now been brought to a successful conclusion, and the new department has been placed in charge of Gaston Plantiff. Prominence is naturally given to the company's motor vehicles—autogols, tricycles, bicycles, victoriettes, etc.—but the man-driven machines will also receive due attention. Beginning next month, when it is expected that deliveries of the bicycles and automobiles will begin, samples of all the machines will be carried and demonstrations given at any time.

Orders for the motor bicycles and victoriettes are being received daily, and every effort is being made to hurry the time of their delivery.

TWO METHODS OF CARE

How Different Riders Devote Themselves to Their Wheels.

There are two ways of taking care of your cycle, each having its advocates, or, at least, its exemplars. One may, for want of a better term, be called the butterfly method, those who follow it going in for looks and neglecting everything else. The followers of the second method scorn outward appearance—sometimes, in fact, taking a pride in a disreputable looking machine—and pay attention solely to the running.

Riders who follow the first plan regard dust and dirt, rust and scratches, as their bitterest enemies. They declare unceasing war on them, and are ever at work with cloth and polishing paste removing the evidences of use. Their machines always present a spick and span appearance, the enamel having a rich and glossy appearance and the nickel that peculiar glistening look caused by frequent polishing. As a rule, riders of this class know little and care less about the remainder of the machine; the attention it receives is infinitesimal.

The bearings may be either loose or tight. Neither fact would be known, while if enlightened on the subject the owners of the machines would not have the slightest idea how to go about remedying the trouble. The wheels, and especially the rear one, might be so far out of true that the tire would almost touch the forks, but not the slightest heed would be paid to this. Lubrication—of either bearings or chain—usually receives scant attention. Oil or grease of any kind attracts dust, and dust is the *bête noire* of the butterfly.

Diametrically opposite are the methods pursued by the rider whose regard for appearances has long since disappeared. He pays heed to the running parts, and if they are all right he bothers himself little with other matters. Perfectly adjusted bearings, properly lubricated surfaces, true wheels, correctly lined frames and forks and chain wheels, smooth running chains—these are the features he deems worthy of attainment. They ease his work and add to the pleasure of his trips a wheel. More he does not desire.

It makes little difference to him that the mud accumulates on the machine, and even around the bearing parts. As long as it does not penetrate the latter or interfere with the smooth running of the chain he cares not a jot. He even comes to take a sort of pleasure in the incongruity between the appearance of the machine and its running qualities. The former serves to bring out in greater contrast the excellence of the latter.

There is, of course, much to blame in this method of caring for a bicycle. Mud and rust do not add anything to the usefulness of a machine, to say nothing of its appear-

ance, and the removal would complete the work begun by the close attention given the running parts. The transition from the care bestowed on the one to the entire neglect visited upon the other is entirely too sudden, and harmful as well. A little attention given to cleaning would be time well spent.

But just as certainly—if there is to be neglect anywhere—is it better to pass by the exterior in favor of the vital parts. Unless the latter are in good shape, proper running, both for the present and in the future, is impossible of attainment. By comparison with this the matter of appearance is a small one.

Not Like Other Connections.

One of the useful little things that was brought out last season, and that merits more attention than it has received, is the Star pump connection, shown by the accompanying illustration. It is the product of the Park City Brass Company, Springfield, Mass., and differs materially in principle



from other connections, as it has a regular leather plunger inside the shell, the same as the pump itself, so that the greater the pressure the tighter the joint; in addition to the plunger, the stem contains a valve ring, made from mooseskin, which forms a second brake against the leakage of air. In action the pressure of the air expands the leather hard against the walls of the shell and also holds the leather valve ring hard against the shell head, so that the air, to effect a leakage, must first pass the leather plunger, and secondly the valve seat, which in practice it cannot do.

In addition to the regular line of Star connections the manufacturers turn out a Star connection with a hardened steel screw end. This steel end connection is especially designed for shop pumps and free air stations, where many tires are inflated every day. It will be understood that when the tire valve thread has been injured by picking or otherwise and the hardened steel point connection is screwed into the tire valve the thread will be corrected without injury to the pump connection. This steel point connection should be of great service to dealers and repair men generally. One steel-pointed connection will be sent with each sample dozen order upon receipt of \$1.20.

Will Fit Any Hub.

In their device the Wyoma Coaster Brake Company, of Reading, Penn., have a feature of which they make the most: It can be applied to any hub, thus obviating the necessity of building up extra rear wheels.

Work for Two Hundred.

Work on the new factory of the Wisconsin Wheel Works, at Racine, Wis., is so far completed that the announcement is made that it will start up on October 1. Two hundred men will be given employment.

WHAT CAUSES THE HEAT

One Feature of the Motorcycle that Calls for Personal Experience.

Persons inexperienced with gasoline motors are frequently surprised to learn that they become very hot in use, and wonder what is the cause of it. Even with riders who have begun to consider themselves tolerably proficient in the art of driving, they fail to comprehend what is going on inside the motor, and, by reason of that ignorance, are unable to apply a remedy when anything goes wrong.

One source of the great increase of original temperature due to explosion of the gases, says a writer in "The Cycle Trader," is compression, and the higher the degree to which the compression is carried the greater the ultimate temperature at the moment of commencement of expansion.

In order to make a deduction from the above facts, and to arrive at the cause of the motor coming to a standstill from overheating, we must trace what goes on during the cycle of operations when starting with all cold.

The first outward stroke of the piston tends to form a vacuum behind the piston, which sucking action opens the inlet valve, and the cylinder is more or less fully charged with the explosive mixture; the compression stroke following gives rise to some degree of heat, the expansion stroke following gives off considerable heat to the cylinder, and the exhaust stroke following that does not entirely expel the products of combustion, so that as these operations are rapidly repeated the cylinder quickly attains a high temperature.

Then, as it is impossible in practice to utilize the whole of the heat of explosion in useful work in the shape of driving the piston, and the balance of heat remaining, and which will vary according to the degree of correctness of the engine design, will go to further increase the temperature, until a point is reached where the combustion chamber becomes so hot that the entering gases commence to expand immediately they pass the inlet valve.

Consequently the back pressure due to this expansion prevents the passage of the full charge of gas, and the motor works with less energy because of the incomplete charge and the partial expansion of the charge before firing, these conditions being aggravated if the motor is now pressed to its utmost limits, until eventually from this and other causes, in combination with defective lubrication, the engine is brought to a standstill.

To avoid this consequence it is necessary to know the engine and machine thoroughly, and such knowledge can be obtained by experience only.

The Retail Record.**CHANGES.**

Castleton, Ill.—E. Steer, sold out.
 Fort Smith, Ark.—C. J. Murta, sold out.
 Anderson, Ind.—J. P. Carpenter, sold out.
 De Perre, Wis.—W. E. Hopkins, closing out.
 Phillipsburg, Kan.—J. M. Wood & Co., sold out.
 Norwalk, O.—W. H. Cleveland & Son, sold out.
 Lockport, N. Y.—J. S. Woodward & Son, sold out.
 West Rutland, Vt.—Harry H. Cummings, closed.
 Caro, Mich.—Ray B. Parker, succeeds B. H. Smith.
 Buffalo, N. Y.—H. C. Colton, succeeds Colton & Cook.
 Atchison, Kan.—L. Widmayer, succeeds L. Widmayer & Co.
 Winona, Wis.—L. L. Bartlett, succeeds Dantzler & Bartlett.
 Miami, Fla.—W. B. Aultman, purchased business of C. M. Greer.
 New Haven, Conn.—A. A. Rosenthal, succeeds Merritt Cycle Company.
 Springfield, Mass.—Purse glove & Duffy, purchased business of H. C. Barnes.
 Wilmington, Vt.—L. P. Copeland, purchased business of "The Wilmington Times."
 Austin, Minn.—Austin Cycle and Novelty Company, purchased business of J. W. Phillips.
 Owego, N. Y.—Cole & Gaskill, No. 88 North avenue, have bought out B. R. Blinn, No. 70 North avenue.

NEW STORES.

Willow Lake, S. D.—C. E. Thomas.
 Claverack, N. Y.—Walter Beardsley, repairing.
 Los Angeles, Cal.—G. J. Parker, Belmont and Temple streets.
 Richmond, Ind.—Moore & Brown, No. 1,022 Main street, repairing.

EMBARRASMENTS.

Bristol, Conn.—E. J. Schalk, closed by creditors.
 Tyrone, Penn.—Farren Zerbe, involuntary bankruptcy petition filed.
 Lebanon, N. H.—Longver & Courtemarch, offering to compromise with creditors.
 New Britain, Conn.—Doherty & Lavoy, closed on two attachments for \$100 each, in favor of W. W. Hanna and J. Mulcondry, of Hartford.

MORTGAGES, ETC.

Webb City, Mo.—George F. Haskins, realty mortgage \$335.
 Mullias, S. C.—J. L. Floyd, real estate mortgage for \$300.
 Ellsworth, Me.—Ellsworth Bicycle Company, chattel mortgage for \$250.
 St. Joseph, Mich.—Augustus M. Herring, chattel mortgages (two) for \$991.
 Jacksonville, Fla.—Florida Cycle Company (not incorporated), suit for \$1,100.

BURGLARS.

Buffalo, N. Y.—James McCrea, No. 1,598 Bailey avenue, loss small.

FIRES.

Springfield, Mo.—Krafft & Garnett.

DEATHS.

Allentown, Penn.—W. R. Laffer.

The Week's Patents.

No. 658,119—Bicycle brake. William H. Parsons, Great Western Mine, Cal. Filed June 25, 1900. Serial No. 21,476 (no model).

No. 658,269—Back pedaling brake. Walter J. Lloyd, Birmingham, England. Filed September 25, 1899. Serial No. 731,595 (no model).

No. 658,028—Bicycle support. Philip A. Shanklin, Sandoval, Ill., assignor of one-half to Stephen A. Ingersoll, same place. Filed January 15, 1900. Serial No. 1,500 (no model).



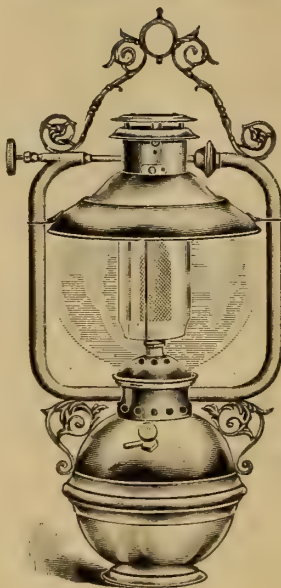
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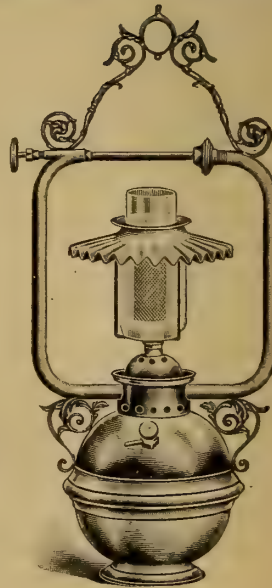
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1877

and MOTORCYCLE REVIEW

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Vol. XLII.
No. 1.

New York, N. Y., U. S. A., Thursday, October 4, 1900.

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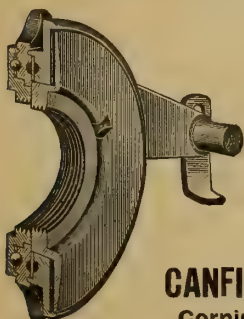
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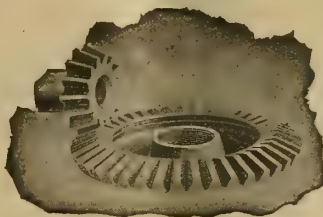
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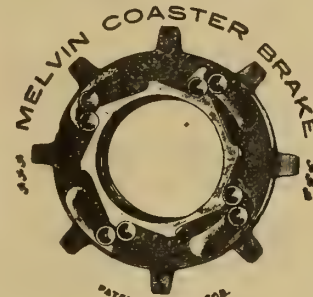
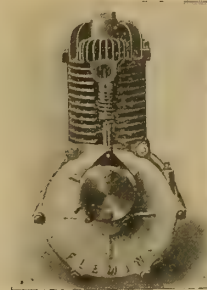
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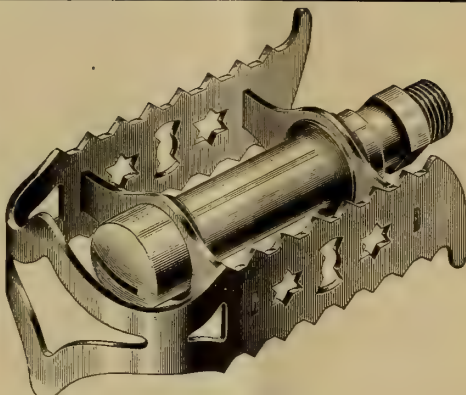
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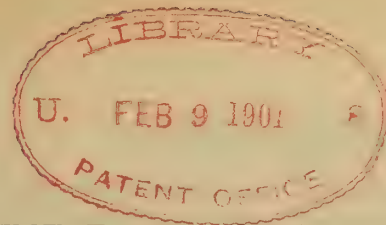
Kenosha, Wis., U.S.A. Sept. 10, 1900.

The H. A. Matthews Mfg. Co., Seymour, Conn.
Gentlemen:—

Replying to yours of late date regarding my experience with the goods purchased of you during the time I manufactured bicycles, and referring particularly to Head Sets, Hanger Cups, Hub Cups, Retainers, Dust Caps, etc., would say that I used these goods in large quantities and always found them satisfactory; in fact, far superior to any I could get elsewhere. They were of accurate dimensions and perfectly hardened, giving us no trouble in assembling and enabling us to produce more goods in proportion to labor employed than anyone else in the trade, and I doubt if I could find their equal in these particulars. I wish also to say that you were very prompt in shipment and when goods were promised they came as promised.

If in the future I need anything in pressed steel work I shall certainly give your goods preference to any others.

Yours truly,
A. D. MEISELBACH CO.



The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., October 4, 1900.

No. 1.

WOLFF-BRETZ-STEARN'S

The Three Engage In a Deal Taking Over the Wolff-American Rights.

Henceforth Syracuse will be the home of the Wolff-American bicycle.

The deal looking to its transfer from New-York, the negotiations for which were reported exclusively in the BICYCLING WORLD several weeks since, was consummated last week, the rights and stock of R. H. Wolff & Co.'s bicycle business being purchased by the recently organized Bretz Cycle Manufacturing Company, of Syracuse. Its chief stockholders are J. S. Bretz, formerly with the Barnes Cycle Company and previously the manager of Wolff & Co.'s cycle department; H. E. Maslin, of E. C. Stearns & Co., and W. A. Doubleday. Mr. Bretz will be the active man of the new concern bearing his name.

As will be recalled, R. H. Wolff & Co., who were large producers of steel and wire, were recently bought up by the American Steel and Wire Company. Bicycle manufacture was but an outgrowth of the business, and the deal just effected was therefore made possible.

Contemporaneous with the transaction the Stearns Bicycle Agency of Syracuse, which recently increased its capital from \$6,000 to \$100,000, entered into an arrangement whereby they contract to market the entire product of the Bretz factory.

In a letter to the Wolff-American agents advising them of the new order of things, Mr. Bretz, after promising a high standard of bicycle construction, explains the selling arrangement in this wise:

"We have made arrangements with the Stearns Bicycle Agency, of Syracuse, N. Y., to market our entire product of Wolff-American bicycles. They will act in a selling capacity only, as an intermediary between the dealer and the factory. Owing to the close proximity in the location of the office of the Stearns Bicycle Agency with that of this company the writer will be able to give at least part of his time to the supervision of the Wolff-American agents' requirements.

"All correspondence relative to Wolff-American business, whether ordering bicycles, parts, repairs or pertaining to 1901

agency matters, should be addressed to the Stearns Bicycle Agency, Syracuse, N. Y., who would be pleased to give such matters their immediate attention. We bespeak for the Stearns Bicycle Agency your most cordial co-operation and support. Their organization is exceptionally well equipped to conduct the selling of our factory product in a most efficient manner, and by this arrangement enable us to confine our attention solely to the manufacture of Wolff-American bicycles and the prompt execution of orders."

On its part the Stearns Bicycle Agency, whose letterhead reads "Distributors of Bicycles," have issued a letter of the same tenor, which also adds that "our offices are within easy access of the offices of the Bretz Manufacturing Company, which will enable us to operate to the best advantage in handling all matters with promptness."

Before the negotiations were completed the Bretz Company, through the Stearns Bicycle Agency, was arranging for material and supplies, so that the ink on the Wolff-American contract was hardly dry before preparations for manufacture were under way. The new models will soon be ready for the trade, and retailers and the trade generally will be uncommonly well acquainted with both the Bretz Company and the Stearns Agency within a twelvemonth.

Linscott Loses His Fight.

Despite a hard fight to prevent it, the Boston Cycle Company, of which the well known J. M. Linscott was manager, was petitioned into bankruptcy on Friday last. The petitioning creditors were the Excelsior Needle Company, of Torrington, Conn., with a claim of \$563 65; the Veeder Manufacturing Company, Hartford, Conn., with one for \$177 98, and the G. W. Cole Company of New York, \$212 96.

The company went into the hands of an assignee in July, since which time business has been conducted as if nothing had happened, the assignee, it is alleged, having not even submitted a stock report.

Linscott was a great cutter of prices, and was not much loved by the rest of the New England jobbers. His hard fight to defeat the bankruptcy petition was attributed to a variety of causes, few of them of a pleasant nature.

A. B. C.'S FIRST ANNUAL

What Is Likely To Occur At the Meeting—Financial Report Shows a Profit.

Interest in the annual meeting of the American Bicycle Company, which is fixed for the 9th inst., is keen and widespread.

The opinion that "something will happen" is general, while the idea that the financial report will be uncommonly interesting is as deep rooted.

That "something will happen" there is every reason to believe, but it will not be of the radical nature that many seem to expect.

THE BICYCLING WORLD has reliable authority for the statement that the most extreme occurrence will be a shakeup of officials.

On present information it is fairly certain that two titled officers will retire or be retired. One of the vice-presidents will succeed to one of these vacancies; who will succeed to this vice-presidency is as yet an open question; either the other vice-presidents will be shifted about or a certain director, J. A. Carter, will step into the place. Mr. Carter, at any rate, is slated for a titled position, and everything indicates that a vice-presidency is the berth.

The American Bicycle Company's financial report has been already compiled, and may be given out before the date of the meeting. THE BICYCLING WORLD is able to state that the figures show that the corporation has made money; just how much is known only to the insiders, but, at any rate, it is certain that the report develops a profit.

Veteran is Out.

Orders have been given by the American Bicycle Company to close the store at No. 2,312 Madison avenue, Baltimore, Md., now managed by N. Tip Slee. The veteran Baltimore dealer is uncertain as to his next move, but it is stated that he is not unlikely to form a partnership with F. B. Eisenbrandt, also a well known figure in Baltimore's cycle trade.

KEHEW-ELASTIC TIP

Two Well-known New England Jobbers Join Forces and Form a New Concern.

Boston, which in the matter of cycle stores and depots has felt the trade contraction as badly as any large city in the country, has one establishment less than it had last week.

This time, however, it is not a failure, a removal or a closing, but a consolidation, and one that will cause no little surprise, the parties to the deal being no less than George F. Kehew & Co. and the Elastic Tip Company, probably the best known jobbing houses in all New England.

Under the arrangement both firms lose their identity and are merged into and become the United Supply Company; its headquarters will be continued at the Kehew address, No. 55 Hanover street. Business under the new name commenced on the 1st inst.

In the past the two concerns have controlled the New England territory on many of the cycle trade's best known and most desirable accounts. These will be added to and with a larger force a more aggressive policy than ever is promised.

Coincident with the announcement of the amalgamation came the news that A. G. Clark had previously retired from Kehew & Co., leaving George F. Kehew and J. C. Pattison the members of the firm.

Claimed To Be Solvent.

Not altogether unexpected was the assignment of the Outing Manufacturing Company, of Indianapolis, Ind., which took place last week. It has been an open secret for some time that the affairs of the concern were not exactly rose colored, the season's trade having been anything but good.

W. C. P. Parker was named as trustee and gave a bond of \$16,000. No inventory has yet been taken, but the liabilities are placed at \$6,000 and assets at \$8,000. The concern is not insolvent, but a large stock of bicycle sundries is on hand, and the assignment was made before it was driven into bankruptcy by creditors.

The Outing company was the successor of the Hay & Willits Cycle Company, which firm made the Outing bicycles. They were caught in the slump about a couple of years ago and forced into bankruptcy. George Evans, an Indianapolis Councilman and business man, bought the plant and undertook to carry on the business, but the venture was at no time very hopeful.

Frederick I. Johnson, of the Iver Johnson Arms and Cycle Works; H. P. Snyder, of the H. P. Snyder Manufacturing Company; A. B. Curtis, of the Reed & Curtis Machine Screw Co., and J. S. Bretz, of the new Bretz Cycle Manufacturing Company, were among trade visitors in New York during the past week.

McLean Assigns and Quits.

The Durant McLean Company, No. 299 Broadway, who during the last two or three years have been quite prominent in the New York trade, assigned on Friday last to John I. Cole. The deed is signed by Durant McLean, president, and Ward McLean, secretary and treasurer. No figures are obtainable.

Durant McLean started the business in November, 1895, and incorporated it in December, 1899, with a capital stock of \$20,000. The company had a branch store in Bedford avenue, Brooklyn. They handled a number of different makes of bicycles, but during the last summer, when the trust was unloading its old stock at queer figures, McLean seemed to be devoting himself largely to those goods.

When seen by a BICYCLING WORLD man he was reluctant to talk of his trouble, but it gradually came out that he laid it at the door of the American Bicycle Company. Asked if poor business had caused his assignment, Mr. McLean replied in the negative.

"The business was all right," he said; "it was the conditions we had to confront."

It was then drawn from him that the American Bicycle Company had refused to continue the instalment arrangements that he had always had with the individual concerns, and as the instalment trade was the most profitable part of his business embarrassment resulted.

McLean declared himself out of the bicycle business. He also handled typewriters, and will continue to do so on his own account and at another address, No. 310 Broadway.

Jury Failed To Agree.

Another of the suits brought by the Chainless Cycle Company, of Rochester, N. Y., against insurance companies to recover insurance claimed to be due on account of the loss in the burning of its factory in August, 1899, came up for trial at Rochester last week in the Trial Term of the Supreme Court.

This time the case was against the Traders' Insurance Company, of Chicago, and the amount claimed to be due was \$1,105. The defence was based on the fact that the loss was adjusted by one member of a commission appointed for the purpose, instead of by all three of the commissioners. After being out all night and failing to reach a verdict the jury was discharged by Judge Davy.

Jobber Johnson Sold Out.

The George R. Johnson Company, once prominent in the metropolitan jobbing trade, was sold out at auction on Tuesday of this week. The sale attracted a good crowd to the Johnson quarters, at Nos. 105 and 107 Chambers street, New York, but the bidding was not very spirited, and the goods went for a song. Eighty dozen pairs of trouser guards, for instance, were knocked down at three cents per dozen pairs; the rest of the stock brought proportionate prices—prices that the auctioneer himself described as "outrageous."

20TH CENTURY—ELECTRO

Two Well-known Lamps Will Hereafter Shine From the Same Light-House.

Unexpected happenings are occurring so regularly in the cycle trade that it is no longer exactly proper to term any of them a surprise.

One such happening that will prove as much a surprise as any occurred this week—the 20th Century (Lamp) Manufacturing Company absorbed the Electro Lamp Company, both, as is well known, being New York institutions.

No inkling of the negotiations had been permitted to escape, and a deal of the sort was about the last thing that was to have been expected, the Electro Lamp Company being but an offshoot of the powerful Carbide Trust.

The terms of the transaction are naturally not public property. The 20th Century company will, however, continue to market the Electro lamp in conjunction with the well-known article bearing its own name. F. E. Castle, representing the company, left this week for the Pacific Coast, carrying samples of both lamps.

The Bundy Lamp Goes Out.

On Tuesday of this week the Frank E. Bundy Lamp Company, of Elmira, N. Y., filed a certificate of dissolution with the Secretary of State. John B. Stanchfield, the Democratic nominee for Governor, was president of the corporation and a holder of forty-five shares of stock. The other stockholders were Harriet W. Bundy, forty-five shares, and J. W. Bowman, ten shares.

Frank E. Bundy, who was once the head of the company, recently got into unpleasant trouble that tarnished his name and dimmed its value so greatly that the dissolution will cause little surprise.

About the Tapered Frame.

In their advertisement in this issue, the Wilmot & Hobbs Mfg. Co. illustrates for the first time its tapered frame, of which announcement was made several weeks since.

The picture will go far to satisfy the curiosity and interest which the announcements aroused. As a departure from the conventional and one advanced as the really scientific method of frame construction, it must command attention everywhere.

The fact that it requires few special fittings is a point in its favor, and that Wilmot & Hobbs are ready to grant shop right licenses for the manufacture of the frame brings it within reach of all.

Bill Goes to Buffalo.

L. H. Bill, long with H. A. Lozier & Co., has engaged with the E. R. Thomas Motor Co., Buffalo. Bill was so long and intimately identified with the Lozier interests that his change will come in the nature of a surprise to many.

THE WANAMAKER WAY

His Manager Talks of Its Achievements and "Plumps" Strong For Motor Bicycles.

No small part of the wonderful success achieved by the bicycle department of John Wanamaker is due to the foresight of its manager, Mr. J. T. Doll, and his ability to make a practical use of that foresight.

The mercantile side of the bicycle was the only one that had any interest for Mr. Doll. How many he could sell and how much profit they would net his house—these were the questions that he asked. By reason of his being a close buyer, with a special predilection for lots bought and sold under the ruling prices, he was naturally brought into an attitude of opposition to the bulk of the trade. They pulled one way, he the other. Yet the ability of his house to absorb enormous quantities of bicycles necessarily made it a factor that no one could afford to overlook.

The two Wanamaker establishments—at Philadelphia and New York—are credited with having disposed of close to twenty thousand bicycles at retail in good years. Even now, when the tide has receded considerably, some idea of the volume of business transacted may be gathered from the remark made by Mr. Doll to a BICYCLING WORLD man last week that between twelve thousand and fourteen thousand machines had been sold this season.

"Even now, although the season is nearly over, we regard it as a very poor day indeed when we do not sell twenty machines at this (the New York) store alone," said Mr. Doll. "On many days we largely exceed this number. Of course, it is the cheap machines that are most in demand, such as are plainly worth more than is asked for them.

"For instance, here is a lot of Eclipse bicycles that are going at \$15.50. They cost more to manufacture than that, as any one can see, and they sell very readily. We bought a lot of them at a low figure because the makers wished to clear them out; and we sell them at a slight advance, and the public reaps the benefit.

"How about the better grades? Well, we are selling a few of them, such as Orients, but not a great many. Riders of this class seem to stick to their old machines. They give them good service yet, and there is no particular reason that they can see why they should change."

The conversation was then changed to motor vehicles. Upon this subject Mr. Doll waxed enthusiastic, and showed himself to be possessed of decided views. He had evidently given the subject much thought and arrived at certain well defined conclusions which he was not slow to put in words.

"Automobiles are going fairly well," he said. "In fact, quite as well as could be expected. But the makers have got to give

buyers what they want before their goods will meet with large sales. The great field is for a light vehicle at a moderate price—say, one carrying two persons, seated side by side, and retailing for about \$500. That is what we are looking for, and I may say that its coming is not likely to be very long delayed.

"But it is the motor bicycle that is going to have the largest sale. Tricycles and quadricycles? No, they will never be a success. They are neither one thing nor another. People who want cycles will go straight to bicycles, while those who want carriages will buy them.

"The motor tricycle is a French product and it is beginning to peter out even there. I imported some of them five or six years ago, but they never amounted to anything. Makers in this country started where the Frenchmen left off, whereas they should have struck out on new lines—just as they are doing now with the motor bicycle. That is where the business is to be done.

"All we want is to be supplied with them; we will take care of the selling part. There will be a big demand for them right from the start, and it will come from the class of riders that paid \$150 for their bicycles some years ago. The motor bicycle is just exactly what they want, and as soon as it is placed on the market they will begin to buy it. The makers need not worry about disposing of their product. That will take care of itself.

"How about price? Well, I look at it just this way: If the makers were prepared to turn out enormous quantities—enough to supply any possible demand—there would be nothing to do but to come down at once to the rock bottom figures. But this is not the case, and will not be for some time to come. It is therefore perfectly justifiable to advance the price a little, especially as it is certain to drop soon enough."

In conclusion Mr. Doll made it plain that he had gone very carefully into the subject of motor vehicles, and had the greatest confidence in the future of the business. He said that the Wanamaker stores had been a power in the retail bicycle trade, and it was the intention to occupy an equally strong position when it came to selling motor-driven vehicles.

Freed From the Charge.

In consequence of an attempt made last week to set fire to the store of David S. Ely, of Madison, N. J., a committee has been appointed to investigate the charges of incendiarism that were rife. The owner, Ely, was examined and completely exonerated.

Goes To Worcester.

So successful has A. L. Adams, of Wiltonville, Conn., been with his business in cements and lubricants that he has decided to remove to Worcester, Mass., where he will have better facilities for manufacturing and disposing of his product.

KEHEW HAS IDEAS

Good Ones They Are, too—How Boston's Jobbers Work For the Common weal.

It is expected that the Boston jobbing trade will to-night complete an organization that has been in the wind for several weeks. Practically all of the reputable jobbers in the city have been enlisted in the movement.

The object of the organization will be mutual protection, exchange of credit information, interchange of stocks and the general betterment of the business.

George F. Kehew, of the United Supply Company, who is one of the prime movers in the affair, was in New York last week. Boston, he says, has suffered from some of the most unnecessary and most unprincipled price cutting that has existed in the trade, and while the chief offender is now paying the penalty Mr. Kehew believes organization will assist in preventing a repetition of such competition.

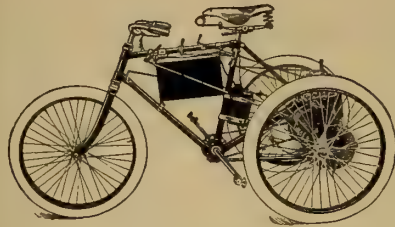
Despite this state of affairs, Mr. Kehew reports that the house of George F. Kehew & Co., which has just been merged into the United Supply Company, has had a highly satisfactory season; he expects to do as well or better another year, automobile fittings being a department that is rapidly extending itself. Among other things, and without particular effort, Mr. Kehew states that his firm sold more than one hundred running gears at \$150 each during the last season.

In talking of price cutting and the jobbers' association that is organizing in Boston Mr. Kehew showed his splendid grasp of the situation.

"Price cutting," he said, "does not sell more goods or stimulate trade; that is a too common idea, and a mistaken one. A neighborhood will absorb a certain amount of goods, no more; if prices are cut it does not swell the volume of sales; it merely sells more goods for the price cutter, and this is at the expense of the other dealers; it simply holds up their sales; the industry itself does not profit a particle.

"In Boston most of the jobbers have been on friendly terms with each other and have realized the force of these facts. As a result, and without organization, we have helped each other at every opportunity. If we were overstocked on a particular article, instead of cutting prices to move it, we called on the other jobbers, and if they could use any of the goods we sold them at cost. If we were short of an article we went to them and they sold us at cost. We all, or nearly all of us, worked on these lines, and the result has been highly satisfactory. We have kept stocks down and maintained prices, and the volume of business has been no less than if we had not worked together."

THIS



This is the Orient Autogo, the fastest American built motor vehicle on God's green earth—proven to be by Albert Champion, who established the world's 50-mile record of 1 h., 15 m., 57 3-5 s., and the world's hour record of 40 miles, 132 yds., at the Chicago track, against the most powerful kind of competition, without an adverse happening of any kind.

It is good to represent the Orient Leader because it holds the championship of this wide world as a bicycle achievement.

It is not equally desirable to have on hand an Orient Autogo which holds the same position in the automobile arena?

Its purchase marks you as the only authorized agent in your town for the entire line of Orient Motor Vehicles. Write for terms.

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Repair—Replace and Repent.

A cheap tire is ever a thorn in the side of its rider, and causes perspiration and profanity as long as it lasts.

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Nothing but high grade.



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HAWKINS

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THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, OCTOBER 4, 1900.

To Assist the Active Agent.

Ask the average dealer of the better class what has hurt him most, and it will be found that he ranks as one of the main causes the appointing of a half dozen agents in a territory sufficient only for the support of one.

That he has cause for complaint in this regard few will dispute.

It is a matter, too, that well deserves the most serious thought the manufacturer can give it.

If bicycles are not to become mere side lines of other businesses, if the exclusive or semi-exclusive cycle dealer is to exist and devote himself to the business as he should and as its best interests require, the manufacturer must make it worth while for him to do so.

We are strongly of opinion that the manufacturer who selects his most active and responsible agents and gives them "territory" in which to work will make a happy stroke and be the gainer in the long run.

Of course, we realize that this policy already obtains to a certain degree. We know that certain large agents control one or more States or counties, as the case may be, and it is this policy carried out in greater detail that we urge as worthy of attention at this time.

Generally speaking, an agent in every city, town and crossroads village has been the rule, no matter if they were separated only by a stream or by a stretch of two, three or four miles.

In the present state of trade the cycle dealer, as such, can no longer endure this sort of thing. He requires more breathing space, more elbow room, if he would live and move about.

If the manufacturer on his part will agree not to appoint agents within a given radius, one wider than has heretofore obtained, the chance of the dealers making a livelihood and an incentive for him to attain best results, i. e., more sales, is afforded.

Give the nearby towns and crossroads villages to the live dealer if he is on your list; if he elects to appoint sub-agents give him authority to do so while he retains the responsibility; refuse to deal with the butterfly dealer who opens in the spring only to close in the fall; let the established all-the-year-round agent have his territory or let him appoint the summer "butterfly" and share the profits. He is always close at hand, and if "his man" is not making sales he is in position to quickly learn the cause and apply the remedy.

Of course, there are objections to this plan. It will be urged that if one maker refuses to appoint "butterflies" and agents in the smaller places another maker will do so.

The argument is reasonable, and the policy we offer for consideration can only be undertaken by one who has ample backbone, but it seems to us a plan calculated to achieve the best ultimate result; it will pay best in the end. It will not only afford the needed elbow room, but will incline the dealer so favored to devote himself mainly to the sale of one line and to the maintenance of its price. In fact, the policy we suggest makes it an object for him to do this.

Something of the sort certainly deserves thought and attention wherever there exists a desire that the cycle dealer, as such, shall continue to exist.

There is need for liberality of this nature and for the protection that a really ironclad contract in the matter of prices affords.

Prompted by self-preservation, it does not

seem that the agent who values his skin will longer juggle with prices. To live he must be intent upon obtaining the full figure, and if his sphere is enlarged, or rather not encroached upon, the likelihood of his doing himself and his goods proud is very considerably increased.

Wish is Father to the Thought.

There are some people who never learn anything by experience, no matter how painful it may be.

For example, there is a feeling in English press circles that prices next year will be advanced. The \$50 machines are falling into disfavor, it is said, and the public is crying for higher prices. It is willing to pay an extra \$10 or \$20, and thereby get something better than the "popular" machines.

No facts of any moment are advanced to support this theory. In fact, the principal argument brought is that present prices are unremunerative, that no one is making any money, while many are losing it, and that an advance in prices is the only alternative to general bankruptcy.

It requires no very great perspicacity to see that the bulk of purchasers, even in England, will never again pay \$60 and \$70 for ordinary chain-driven bicycles; and these plainly hall-marked as second grade. There are a few who will pay more, but in nine cases out of ten they will add still more to the price and get the first grades.

It is not contended that the \$50 machines which are to be relegated to the rear are not sound, serviceable ones; nor that they have proved to be unpopular—the fact being, on the contrary, that they have pushed other models aside. It is simply that they do not, and cannot, under present methods of manufacture and sale, be made to yield a profit.

It would not be easy to find a more absurd argument. It would be weak enough if it were impossible to reduce costs; for buyers do not interest themselves in such matters. But when it is notorious that manufacturers in other countries have solved the problem there is left not a vestige of force to the argument.

Rubicon Has Been Passed.

It is extremely probable that the future student of automobilism will come to the conclusion that in some not easily understandable manner the subject was attacked in the wrong way—backward, as it were.

All types of motor vehicles received their

fair share of attention before motor bicycles. The latter were pushed in the background and kept there while experiments of every kind were tried with three and four wheelers. Last of all, and almost on the principle of "try it on the dog," the bicycle was turned to.

For quite a while, however, there was a disposition to move very cautiously in the matter. Grave doubts were entertained not only as to whether the motor bicycle was a practical vehicle, but also whether there would be any real demand for it if it were. Until a line could be obtained on the latter point there was no great rush to get down to work.

Even at the present time the motor bicycle is almost entirely "in the air." A number of them have made their appearance, and some have worked fairly well. But they were experimental machines, and no real work could be started until it was known whether they were satisfactory or not.

At the present time this work is being prosecuted on such of them as are held to have given satisfactory results. They will in due time make their appearance on the market, there to meet a much more favorable reception than a few months ago would have been considered possible.

For there is little ground for taking a doubtful view of the matter now. The appearance of the experimental machines, the discussions that followed in their train, the confident predictions made of their future, all have borne fruit. There is no longer any doubt of there being a demand for such machines. Rather is it a question of whether that demand will be taken care of and how much it will grow.

Among dealers and others who have the selling to do a great change has taken place. It is no longer "make your motor bicycle and we will see what can be done about selling it"; but, rather, "turn them out and we will attend to the selling end."

In short, the trade and the public have had a touch of the fever. The idea of the motor bicycle has taken hold of and fascinated them, and all they can say is, "Give it to us and we will make good use of it."

Nor is there any such disposition to haggle about price or to demand perfection as would have been looked for only a few months ago. The best that can be given is all that is asked or expected, and anything in reason will go.

It is apparent to any one that any maker who has a decent motor bicycle to sell next season will find plenty of customers. He is

very much more likely to be overrun with offers than to be shy of them, and if he is not getting ready now he is losing precious time.

It is no longer reflection or discussion that is called for. The time for action is at hand.

Made Haste Quickly.

It was only a short time ago that the fear was expressed that the great drawback to the extension of the motor vehicle industry would prove to be the scarcity of motors.

Already that fear is in a fair way to be dispelled. The manufacture of motors has been taken up by progressive concerns in this country, and already the results are such as to make it reasonably certain that the excellent foreign engines will be supplemented with equally satisfactory ones here. As a rule these firms are proceeding along good, sound lines, seeking to develop new business among the retail bicycle trade.

At present the imported motors have the call, and will continue to be the favorites for some time to come. Their makers were first in the field, and it is not surprising that they should have been able to place themselves in their admitted advantageous position. All that ingenuity and mechanical skill could accomplish they have accomplished.

But they no longer have an undisputed field. The sum of inventive genius is not contained in them, nor do they hold a mortgage on the future development of the motor. Even as at present constructed, motors are expensive and hard to get promptly and in large quantities. There is therefore every incentive to the inventor to improve the motor, lessen the cost or increase the product.

This being true, it does not take any unusual amount of discernment to perceive that the next few years will witness great activity in the manufacture of motors.

Shoe May be on the Other Foot.

It is quite probable that the friction between the owners or drivers of horses and the users of motor vehicles is greatest at the present time.

The novelty of their appearance has worn off to some extent, and the meeting of the equines and the automatic machines is no longer invariably productive of trouble; but, on the other hand, the rapidly increasing number of horseless vehicles undoubtedly causes the trouble to be distributed over a wider area.

It is a logical outcome, therefore, that be-

fore a very long time has elapsed practically every horse used for driving will have had a chance to see and become accustomed to the new vehicles. If he is a sensible animal—and in an overwhelming majority of cases it will be found that he is—he will speedily become accustomed to them and there will be no further trouble. The dissenting minority will soon become rightly placed, being regarded as intractables that are unfit to be used on the public highways.

While this course of instruction is being gone through with, it is inevitable that there should arise frequent causes for dispute and that the courts should be frequently called upon to settle them.

It is almost equally certain that the question will be viewed from its practical side. It will not be asked, Can the world get along without the motor vehicle? or does it interfere with the convenience or safety of a few? Rather will it be held that it is a distinct step forward, and that it conserves the interests of the many.

This is plainly the view taken by Justice Dixon, of the New Jersey Supreme Court, in the case reported in another column. The fact that a motor vehicle "occasionally or exceptionally frightened horses" is not sufficient to indict it as a nuisance. It must do this habitually—must interfere with driving on the highways—or it cannot be restrained from their use.

This is undoubtedly the common sense view of the matter. The highways are maintained for the "greatest good of the greatest number," and if everything that irritated or aggravated a skittish horse were interdicted the highways would take on a vastly different appearance.

And it is only the refractory horse that will harbor any lasting aversion to motor vehicles. The docile beast will soon conquer any objection he may entertain at the outset. This has been abundantly demonstrated during the last few decades.

As for the balky horse, the time may come when his right to unrestricted use of the highways—with all the accident causing possibilities that follow in his train—will be disputed.

"Cycle Age" still persists that it isn't proper that the trade should have to do with motor bicycles. But the "Age" still refuses to say why it spoke up for motor tricycles. However, there are some eye-openers in store for it.

DISPROVING PIRRONG

His Criticism of Coaster-Brakes Causes a Stir—Strong Evidence in Rebuttal.

"Any one who imagines that the coaster-brake has lost any of its popularity is fooling himself," remarked H. E. Walker, manager of the Eclipse Manufacturing Company's New York branch, when W. H. Pirrong's prophecy to that effect, published in last week's BICYCLING WORLD, was under discussion.

"If there was any symptom of anything of the sort I can't imagine that any one would feel it quicker than ourselves; and you have my word for it that we have not detected the faintest glimmering of a decline of interest or a decrease of sales," continued Mr. Walker.

"Why," he went on, "we are figuring on and preparing to do twice as much business next year as we did this season, and I do not believe we will be disappointed. Just now we are up to our eyes in export trade.

"Accidents due to coaster-brakes? Nonsense! I have yet to hear of the first one. While we have had no complaints about the Morrow, I suppose coaster-brakes may have broken, just as a tube or a tire or any other part of a bicycle may break; but I've never heard of any one being killed or injured. Why, the coaster-brake makes for safety in cycling. The back-peddalling impulse is instinctive. In a moment of danger we back-pedal when we think of nothing else, and the coaster-brake makes back-peddalling count for something.

"Hurt the sale of new bicycles?" he says," went on Mr. Walker, and then he added: "Well, if it hadn't been for the coaster-brake the interest in cycling and the bicycle business itself would have been a darn sight duller, and I supposed the fact was generally recognized and admitted. The coaster-brake has come to stay; there is and will be no decline of interest or sales."

"If Mr. Pirrong could see the people who come in here, and hear what they say, he'd be likely to change his opinion," interjected J. E. Towne, Mr. Walker's right-hand man.

Mr. Pirrong's statements also aroused the Eclipse Manufacturing Company itself. In the course of a letter taking exception to them Ralph D. Webster, manager of sales, brings some stubborn facts to disprove the Cleveland's assertions. Mr. Webster says:

"We are pleased to say, in evidence of the fact that the coaster brake has grown in popularity, and has not 'shot its bolt,' that we received yesterday, October 1, orders for more Morrow hub coaster brakes than were received by us during the first fifteen days of October one year ago, and that during the first fifteen days of October, 1899, we received more than half the orders received by us during that entire month. We

are also pleased to state that during the month of September, 1900, we received orders for four times as many Morrow hub coaster brakes as were received during the month of September, 1899. As further evidence we are as pleased to say that two-thirds of the orders received by us yesterday, October 1, came from bicycle manufacturers, companies whose credit is good and whose standing in the trade is excelled by none. These firms have gained the positions they now occupy in the trade by their good business ability, which has led them to manufacture good cycles, and equip them with an equipment desired by the public. You very well know that manufacturers at this late day in the season will not purchase equipment that is not salable; and as evidence that the coaster brake has gained in popularity we submit that these orders from manufacturers, at this time of the year, show very clearly the demand which has daily developed."

Made An Investigation.

Upon the result of an investigation of the affairs of the Huntington Manufacturing Company, of Huntington, Ind., which is now being made, will depend, largely at least, the success of the negotiations pending for a consolidation of the Ariel Cycle Company, of Goshen, Ind., and the Huntington company.

A short time ago overtures looking to such a consolidation were made by the Huntington concern, and were favorably received. The basis of the proposed arrangement was the purchase by the Huntington company of the Ariel company's interests, the subscribing of \$5,000 worth of stock in the new company by the citizens of Goshen, and the location of the reorganized concern at the latter place. B. D. Emanuel, who organized the Huntington Manufacturing Company, was the moving spirit in the matter.

As the success of the reorganization depended on the \$5,000 subscription, the Goshen Commercial Exchange took the matter up, called a meeting and decided to send a man to Huntington to see just what the Huntington company had to offer. His reports has not yet been submitted.

Big Balls the Feature.

"Large balls" will be the slogan of the Forsyth Manufacturing Company, of Buffalo, N. Y., in announcing its 1901 line of pedals to the trade.

Nothing but the highest of high-grade construction prevails throughout, and no attempt has been made to produce a pedal to "sell at a price." On the contrary, the Forsyth people claim to be the only pedal manufacturers to offer a distinctively new high-grade line for next season. The racing and light roadster pedal is certainly an impressive creation, while the regular pedal fully maintains the standard in its class. It is more than probable that the Forsyth productions will be seen on many of the high-class wheels the coming year.

CONSOLING COMPARISONS

Figures That Show the A. B. C. Stockholders That "There Are Others."

While the cycle trade at large is familiar only with the slump in the American Bicycle Company's securities, Gustavus Maas, in "The New York Times," brings to bear a table proving that "there are others." It shows that the decline in industrials on the New York "curb" was almost general during the year, and while "curb" quotations are not always to be accepted at their face value, Maas's comparisons, which follow, are none the less interesting:

	Highest, 1899.	Sept. 29, 1900.	Declines, 1900.
Amalgamated Copper....	110	86½	23½
American Bicycle.....	25	5	20
American Bicycle pf.....	68	28	40
American Chicle.....	60	67½	*7½
American Chicle pf.....	85	78	7
American Type Founders.	56	57	*1
American Woollen Goods.	29	13	16
American Woollen G'ds pf	85	70	15
American Hide & Leather	37¾	15	22¾
Am. Hide & Leather pf..	83½	40	43½
Asphalt Co. of America..	25½	7	18½
British Columbia Copper.	14½	11	3½
Central Foundry.....	25	2	23
Central Foundry pf.....	69	10	59
Compressed Air.....	96	31	65
Consol. Equipment Co....	21	6	15
Consolidated Rubber Tire.	34	4	30
Consol. Rubber Tire pf...	80	30	50
Crap Ship & Eng. Bldg.	91	70	21
Distilling Co. of America.	20	4	16
Distilling Co. of Am. pf..	60½	18	42½
Elec. Pneu. Transit Co....	7¼	3	4¼
Electric Boat.....	41	15	26
Electric Boat pf.....	61	25	36
Electric Vehicle.....	151½	20	131½
Electric Vehicle pf.....	150	40	110
General Carriage Co.....	200	5	195
Havana Commercial Co....	43	8	35
Havana Commer. Co. pf..	75	40	35
Illinois Transportation...	16½	1¼	15¼
International Pump Co....	37½	16	21½
International Pump Co. pf	78½	64½	14½
National Enamelling Co...	35	20	15
Nat. Enamelling Co. pf...	85	73	12
National Gramophone Co.	87	20	67
New Eng. Transportation	20	3	17
New Eng. Gas & Coke Co.	40	10	30
New York Transportation	38	7	31
Otis Elevator Co.....	43	25	18
Otis Elevator Co. pf....	99	84	15
Royal Baking Powder pf.	101	91	10
Rubber Goods Mfg. Co....	45	29	16
Rubber Goods Mfg. Co. pf.	90	76	14
Safety Car Heating.....	175	120	55
Standard Oil.....	499	538	*39
Tel., Teleph. & Cable of A	11	6	5
Tennessee Copper Co....	32	13	19
U. S. Cast Iron Pipe.....	10	3½	6½
U. S. Cast Iron Pipe pf...	60	25½	34½

*Advances.

Perkins Will Push Pedals.

Albert Perkins, long superintendent of the Lamb Manufacturing Company, has engaged with the Reed & Curtis Machine Screw Company, Worcester, Mass., and will represent them on the road. Mr. Perkins, incidentally, knows a few things about pedals that are worth knowing.

The Pennsylvania Rubber Co., of Erie, has a new sales manager, Charles F. W. Kelly, who for several years was manager of the B. F. Goodrich Co.'s Detroit branch.

COVENTRY COMING

Motocycles Awakening the Famous Cycle-Making Center—Innovations Promised.

London, Sept. 15.—On what should be reliable authority I hear that several of the Coventry cycle manufacturing firms are now going in largely for the making of motorcycles, and that a good many of these machines will be on view at the autumn shows. I am also informed that in some instances the general designs will be distinct departures from the usual patterns now obtainable.

The method of ignition, or rather of the arranging of the electric current, will in one case be entirely novel, while several makers will exhibit machines with the motor in a different position from that usually adopted. Two or three samples will have horizontal cylinders, but I cannot see where the improvement comes in in such cases; in fact, I think that, theoretically, a vertical motor should prove more satisfactory, because the cylinders and piston will be more likely to wear evenly. With a horizontal cylinder the weight of the piston may tend to wear the cylinder somewhat oval, but with a vertical motor such an occurrence is impossible. On the other hand, it must be admitted that a horizontal cylinder gives a neater appearance to the machine, which is a great consideration with many people, and is in any case a selling point.

As it is now pretty generally agreed that electric ignition is an essential of any good motorcycle, it is just as well to point out that at present there is a great field open for the invention of either a perfect dry battery or a type of accumulator which can readily be recharged, and is thoroughly reliable. I have no hesitation in saying that 90 per cent of the motorcycle failures are due to trouble with the electric arrangements. Very often it is the battery which is a fault, although it not infrequently happens that the contact breaker requires careful adjusting. Very few motocyclists seem to understand the importance of this, but in any case the operation should not be required nearly so frequently as at present. The platinum contacts appear to wear badly on most machines, while the metal composing the spring of the contact breaker often leaves much to be desired.

As at present made it is often a somewhat difficult matter to obtain a really hot spark, without which no motor will run successfully. The makers of the induction coils do not construct these to resist a sufficient voltage, 3.20 being thought ample in many cases. As a matter of fact, it is better to have five or six volts, as under these circumstances a motor will run with much less

chance of missing fire, while the increased cost of current is very little.

I fancy that many of the detail improvements which may be expected will be seen upon cycles turned out by smaller makers, who, not manufacturing in large quantities and therefore not risking so much, can better afford to experiment. Of course, it may be said that this experimenting is done at the expense of their customers; but, granted that this is the case, I doubt if the public are losers in the end. As a rule the small maker becomes a practical motocyclist before he commences to manufacture machines of this class, which is a good deal more than can be said in the cases of many of the Coventry makers. The smaller man has his practical experience as a guide, and as a consequence is not likely to turn out a machine which will not work up to the ordinary standard, while it is just possible that he may be able to beat this by no means very high ideal.

Recently I have seen two such motorcycles, each of which presented several structural details in advance of the ordinary patterns. One was made mostly of the ordinary component parts, which are now being turned out in quantities by the Eadie Manufacturing Company, Limited, and one or two other firms catering specially for the assemblers, but the other was a more costly mount, special patterns having been made for the axle and other important parts. There were also several detail improvements in the arrangement of the electrical portions, and I should say that short circuiting under any conditions will be next to impossible. In both cases these cycles are the products of small makers who have had three or four years' practical experience with motors, but one man has had more leisure and a longer time at his disposal than the other, the effect of which is that his machine is undoubtedly the better of the two. In the matter of prices both these motors come out some \$50 cheaper than those of the larger firms, and this in spite of many special parts having to be made separately, which, as every one connected with practical engineering matters knows full well, adds exceedingly to the cost of production. The fact, then, that those machines which are made in large numbers are not turned out more cheaply seems to imply that the profits are too high or that the system of production is defective. Perhaps it is a little of each. Anyway, I hardly fancy that those cycle manufacturers who are just embarking upon the motor industry with the hope of retrieving their fallen fortunes, but who have at present little or no practical experience to guide them, will find the road to success strewn with roses.

The failure of many of the motor quads taking part in the trip organized last week by the English Motor Car Club to get up one or two of the hills encountered on the by no means difficult route should act as a

lesson that a more powerful motor or else a good two-speed gear is required for a machine of this class. The case of a quad failing at a hill is even worse than that of a small car. For the latter event it is always possible to start the motor and let it drive the empty vehicle up the incline, while the driver walks beside the car and steers with one hand. But with a quad the difficulty is to start the machine, and, having done so, to be able to steer it and control the taps when out of the saddle. Moreover, such machines will seldom develop any appreciable amount of power when travelling at a walking pace, so that progression under these conditions is very difficult. Yet we have at present no two-speed gear for motor quads and tricycle, although the Ariel company is now experimenting with such a device, and it will be obtainable soon. Here again we see the value of practical experience, for had not Mr. J. W. Stocks been such an enthusiastic motorist it is very doubtful if this great need would have been so rapidly appreciated and promptly met by the company with which he is connected.

Every Man His Own Repair Shop.

The toolbag on a motor tricycle, or rather the contents of it, is something calculated to make the average wheelman blink. The size of the bag and the diversity of articles it contains is amazing, and yet there are those who hold that it should contain more.

Here, for instance, is what an Englishman, the author of a vest pocket volume, "Motor Tricycle First Aid," would have the motocyclist carry with him: Inlet and exhaust valves; springs, cups and cotters for same; two sparking plugs; asbestos yarn and copper washers; some graphite; plug spanner and shifting wrench; box key for cylinder top; pliers and screwdriver; two 6-inch half-round files; two small punches; spare nuts, bolts and washers; few wire nails, assorted; petrol funnel; insulated wire and copper wire; rubber insulating tape; some assorted split cotters; tire outfit, with crowbar; small lubricators—paraffin, petrol, machine oil; voltmeter; emery cloth; leather for washers; spare interrupter; axle grease.

Australian Trade Organizes.

The spirit of trade organization has reached Australia. The South Australian Retail Cycle Traders' Association is the result. The main objects of the association are, first, to place the trade upon a sound footing; second, the protection of its members and of the public dealing with its members, and, third, regulation of prices. Under the last-named rule the members are bound by agreement not to charge over or under a certain listed price for the different classes of goods, such lists being supplied to the members.

The stock of the defunct Bicycle Export Company, Hamburg, Germany, has been purchased by Goldschmidt & Mindus, of that place. Most of the stock comprised American goods.

TWIN-ROLLERS TRIAL

At Its Worst Proves As Good As the Block Chain At Its Best—Strong Reasons For the Trade's Attention.

To-day the block chain is universal. There are other chains on the market, and riders can procure them if they make the necessary effort and, in some cases, pay the extra price. But few of them do so, many from ignorance of the merits of other chains, others from a proneness to run with the crowd.

It well illustrates the change that has come over the cycling world to note the continued popularity of the block chain. It superseded the roller chain because it was a step in advance. Now that conditions are reversed, as is claimed, no change takes place. The trade is in a rut and seems to prefer to stay there.

For, while the block chain has stood still, the roller type has progressed. Constant experimenting with it has resulted in the eradication of its defects, the enhancement of its merits. It is not equality that is claimed, but superiority.

This appears to be a broad assertion to make, and one not easy to support with facts. But the proof of the pudding is in the eating of it, and the trial by the writer of a roller chain, soundly constructed on modern lines—that is, with twin instead of single rollers—will support the contention that it is a big step forward.

At the start there is no difference between a roller chain—the one in question was a Chantrell twin roller, but it is a fair presumption that the Morse or other twin roller types would give equally satisfactory results—and one of the block pattern, both being in good order. But this is a distinct advance, for in the old days this was just where the block chain scored. The roller chain never did run as well except under stress of mud.

But when mud is encountered—such mud as is found on freshly sprinkled macadam roads—a wonderful difference is apparent. The first clot that falls on the block chain affects injuriously the running of the machine. The rider can feel that bit of mud each time it passes over the sprocket wheel, and each additional instalment of mud makes matters worse. He may think that the limit has been reached in this respect, but he is always undeceived.

It is quite another story with the modern twin roller chain. Nothing seems to phase it. It does its work undisturbed, whether it be as clean as the proverbial whistle or plastered with mud. Dust has no effect on it, nor a failure to lubricate. Its appearance

is injuriously affected, to be sure. It looks as if it ought to do some or all of the things that would happen if it were a block chain, but nothing of the sort occurs.

To complete the chapter of excellencies, the twin roller chain does not stretch or wear out. At least, an experience extending over several months has failed to reveal the slightest tendency to either of these failings.

The chain in question was placed on a machine and has never been touched since. On its first ride it was christened by following a sprinkling cart and getting a bath of cement-like mud. The next day came a smart shower to flood the joints with water, which was not even wiped off. With its coating of half-obliterated mud and bright red rust it seemed as if decent running for the machine was out of the question.

But the chain belied its looks. The collection of extraneous matter seemed to have absolutely no effect on its running. It moved over the sprocket wheel teeth just as sweetly and smoothly as when it was first fitted to the machine.

In short, the twin roller chain at its worst—and it was the aim of the writer to get it at its worst, to make it hard running if this could by any possibility be done—was quite equal, and possibly a shade superior, to the block chain at its best; infinitely superior when the latter needed attention.

Everything that is supposed to affect the running of a chain was done to this one; the purpose of the test was to get a line on its work under the most unfavorable circumstances; and the result was a triumph that was as complete as it was entirely unexpected. More could not be asked or desired.

It upset preconceived ideas, too. In speaking of roller chains the old style rollers came to mind; their clumsy and heavy appearance, their sole merit—that of not being affected by mud or dust—their disagreeable habit of stretching and wearing out quickly; these were the thoughts that were uppermost. That the new twin roller was a very different chain was believed in a vague sort of way, but that, everything being considered, it could be a decided improvement over the block chain, was not even thought of.

Yet it can be asserted unreservedly that nothing more could be asked of a chain than was given by this one. It is no exaggeration to say that it settled the chain question in the writer's mind. There was no need of a gear case with the twin roller; hardly any for a chainless machine. It ran the same in all weathers and on all roads. It required no cleaning, no lubricating; or, at least, if such attentions would have improved it the need was not apparent.

In the writer's opinion, it is no longer a question of whether the chain is capable of improvement or how it can be improved. The problem has been solved, the improved chain is at hand.

No experiments are necessary before making use of it. No risks are taken, no expense is incurred, no talking is required to have it tried. No change in design has to

be made; the standard sprocket teeth take the twin roller chain, and the rider will not know that he has one—until he notices that it does not give the usual ground for complaint.

In short, here is what the trade and the public have been looking for—a chain that does not require daily, weekly or even monthly attention, and one that rises superior to all weathers and all conditions.

The twin roller chain has a great future before it. You may just as well reap a part of the benefit from it as to have it go to your competitor.

It is worth trying, and the sooner the task is undertaken the better it will be for both maker and dealer.

Registration of Patents In Cuba.

Attention is being called in Havana to the facts that all persons being in possession of legal patents of invention taken out in Madrid, Spain, and registered for the island of Cuba, must file within a term of six months from the date named the duplicates of the specifications, drawings and models belonging to their patents, or a certified copy of the same, together with a certificate showing that their patents are in force in Spain, so that such patents may be protected against foreigners.

Further, that American patents that have been presented for registration in Cuba and those which shall be so in future shall be registered at once, provisionally, in the special register kept by the Secretary of Agriculture, Commerce and Industry, on condition of deciding in due course of time what may be deemed fit about their final registration or absolute rejection.

Betts's Appointment Made Permanent.

The appointment of Frederick A. Betts, the temporary receiver of the Keating Wheel and Automobile Company, Middletown, Conn., was made permanent by the Superior Court on Saturday last. He was given permission to continue the business for four months or more.

The report of Mr. Betts from the time he was appointed temporary receiver up to the close of business on September 15 shows that the receipts were \$14,013.25, the disbursements \$10,075.86, and the amount on hand \$3,937.39. There are thirty men employed now, and there are about two thousand more wheels to be assembled and put on the market.

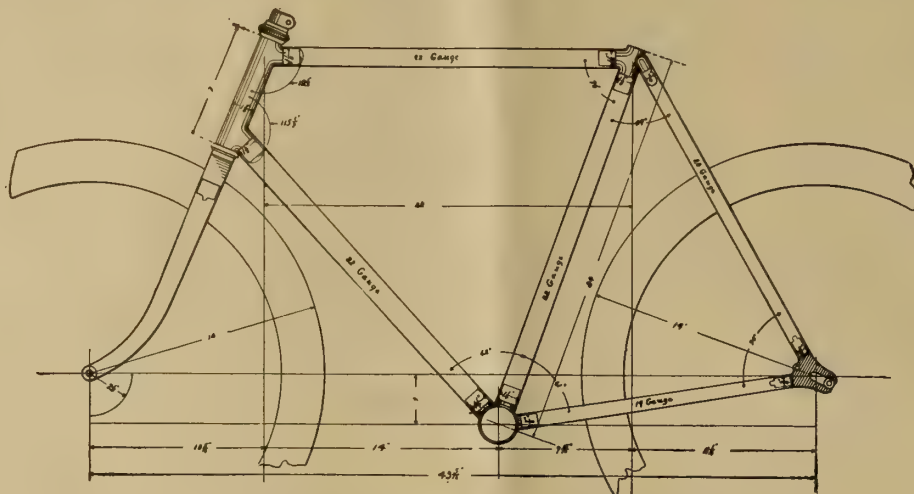
Will Be Kept Busy.

It takes six thousand wood rims to fill a car of average size, and a rim factory located in Cambridge, Vt., is engaged in shipping one carload a week to fill an order for twenty-five carloads.

Tempering of Small Drills.

Small drills can be tempered or regulated by heating to a cherry red and plunging into a lump of beeswax or into quicksilver or resin.

1901—SOMETHING NEW FOR—1901



Scientific Frame Construction. Model No. 14.

SAFETY IN "BRASS LINED" TUBING, FORKS AND STAYS
Prevents rusting and weakening of Cycle Frames,
and the adoption of

"SCIENTIFIC FRAME CONSTRUCTION"

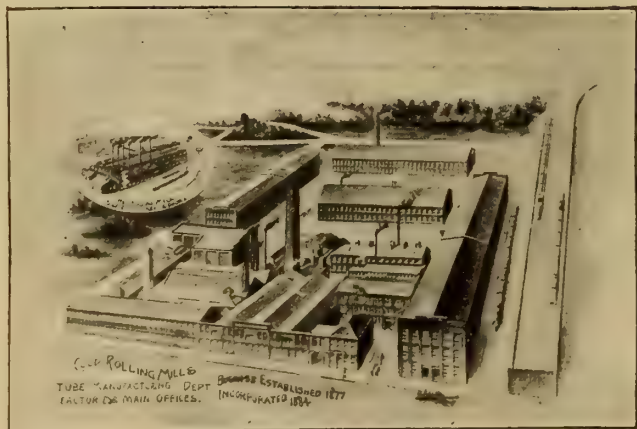
Adds new "TALKING FEATURES" and EXTRA PROFITS for next season's trade. In cycle construction it has been the general practice to have Rear and Front Forks tapered to distribute strength in proportion to the strain to be met. The larger Tubing in the main frame should also be tapered throughout its length for the same reason. Riders readily appreciate this argument as it appeals to their common sense and they buy accordingly.

In "Scientific Frame Construction" the lower front Tubes are tapered throughout their length from $1\frac{3}{8}$ inches at head to $1\frac{1}{4}$ inches diameter at the crank hanger—the upright or seat mast Tube is tapered from $1\frac{1}{4}$ inches at crank hanger to $1\frac{1}{8}$ inches at top and the top bar is a straight $1\frac{1}{8}$ inches diameter Tube. This results in all $1\frac{1}{4}$ inches lug crank hangers and $1\frac{1}{8}$ lug cluster fittings being standard and the heads with $1\frac{1}{8}$ inches top lugs and $1\frac{3}{8}$ inches bottom lugs are all the fittings required as special. The Crosby Co., of Buffalo, N. Y. and all the principal fittings makers' can supply these heads.

This construction lessens expenses for allowances, repairs and expressage on broken frames, and what dealer, jobber or cycle manufacturer has not had a lot of expense and annoyance in this line, not to mention damage to his trade and good will by frames occasionally breaking, when if "Scientific Frame Construction" had been adopted and the strain distributed over a greater length of Tubing the breakages would probably not have occurred.

Shop right licenses for manufacturing of frames of this character can be had by dealing with the undersigned.

Crescent Rims made from "Swedoh" Spring Steel, Extra Strong for Automobiles and Motor Cycles.
Hot and Cold Rolled Strip Steel, for Pressed Stamped and Drawn Work.



THE WILMOT & HOBBS MFG. CO.,

Main Office and Works,

Bridgeport, Conn., U. S. A.

Business Established, 1877; Incorporated, 1884.

New York Office, 258 Broadway.

CLOUD'S SILVER LINING

Bad Season Will Cause Retirement of Poorly-Equipped Repairmen.

"What sort of a season have we had?" repeated the proprietor of a large and well conducted repair shop to THE BICYCLING WORLD man's query. "Well, to be perfectly frank, it has been about the poorest season I have known for many years.

"The 'slump' has struck us, and there's no use in trying to conceal the fact," he continued. "We have been hard hit, and had it not been for outside work I would be in a pretty bad way, I don't hesitate to say. What made it worse was that the falling off in our business was entirely unexpected. We did not look for it, consequently were not prepared; and it took some work to get things into shape.

"Even when it became plain that sales were going to show a decided falling off we did not take warning. This was early in the season, and there was plenty of repairing to do and we supposed it would last clear through the season—just as it has always done before. People might not buy as many bicycles as usual, but there would be no decrease in the number brought in for repair. In fact, we thought we would be benefited by decreased sales; if fewer new machines were sold more old ones would be ridden; and they would come in to us for repair.

"But it was not long before this feeling received a rude shock. Along about May we began to find that we could handle all the work offered without any great trouble. We had a pretty good force, although not as large a one as we expected to be obliged to put on; but we began to find that we could cope with the end-of-the-week rush without having recourse to very much nightwork. Of course, this rather startled me, and I began to look into the matter.

"It was not long before I became convinced that there was something wrong; also that it was going to stay wrong. There might be an improvement now and then, but it was temporary only. Business would fall off just as quickly as it came, and it was not easy to gauge it and keep the right force on to handle it. So it has continued through the entire season, and I can't see any reason for believing that it will be any better next year. If it is just as good I shall be pretty well satisfied.

"Nevertheless, I am not altogether sorry that matters have turned out so. It's hard on us, this waiting for better days; but it is harder on other repairers—so hard, in fact, that they can't stand it, and that is a sure sign that the better days will come. As long as my competitors could hang on they would; it made little difference that they were not making a decent living and were preventing me from doing as well as I might; just as long as there was enough

work to keep the wolf from the door they would stick.

"I have in mind one case now that illustrates what I mean. A repairer in a suburban town had pretty hard work to keep his head above water, but he always managed to do it until this year. He had one assistant, and when business fell off this season he dispensed with his services, but the work still dropped, until there was only about half enough to keep himself busy. As he had no capital, and he must draw enough each week for his living expenses, he soon began to run up bills for parts and supplies.

"The end came a short time ago. He threw up the sponge and went back to his original trade, that of a machinist. He had to do it, although it was like pulling teeth. He preferred to be in business for himself, even at smaller wages than he could make



NEW YORK BRANCH: 214-216 WEST 47th ST.
BOSTON BRANCH: 80 BATTERY MARCH ST.,
Near Fort Hill Square.

in a machine shop. He had worked in this way for years, and he would have continued to do so indefinitely. As it was, he bettered himself and he helped me, for part of his trade, reduced though it was, came to me.

"There are a lot more of such people who are being forced out. In addition there are many 'kitchen repairers' who will have to go the same way. They are even worse than the first class, for they have neither ability, reputation nor character. They work during the day and then devote the evenings and Sundays to taking a few dollars out of the pockets of the regular repairers. They do botch work and take the jobs at any price. No one need waste any sympathy on them.

"So, you see, there are two sides to the story. It is hard to go through such a season as the one just past, but those of us who can live through it, and in addition weather the coming winter, are going to be benefited. I don't mean that there will be a general clearing out or that we will make our fortunes next year. Very far from it.

"As far as that is concerned, no one works harder for his living than the repair man, and any improvement in his condition will be a blessing. He will have less competition next year, and should come a little nearer to earning decent wages the year round. That is all. How many will begrudge him this?"

CHEMNITZ'S REGULATIONS

What Motor Vehicles Can Do—Horse's Speed a Standard.

In framing a set of automobile rules, which apply to motorcycles as well, the authorities of Chemnitz, Germany, point to the horse as a regulator of speed. Under no circumstances are the machines to go faster than an "ordinary trotting horse," while at other specified times this speed is to be reduced to correspond to that of a walking horse.

The regulations are as follows:

"1. Persons under fifteen years of age and persons who have no knowledge as to the management of such machines shall not be intrusted with the running of automobiles.

"2. All persons who do not give their undivided attention to the management of automobiles or who while using the same fall asleep or get intoxicated are liable to punishment.

"3. The signal to turn out shall be 'Heeh.' The use of signal horns will be permitted until further notice.

"4. Every automobile must carry at least one very good lantern; the same shall be lighted at the same time as the street lights.

"5. The speed of automobiles in the city shall not be faster than that of an ordinary trotting horse.

"No one shall run an automobile faster than a horse walks (a) on leaving buildings or sheds bordering on the street, (b) during church service in the neighborhood of churches, (d) in places where there is large foot traffic, (e) in places where fast driving is forbidden.

"6. Automobiles shall not be left unattended in the street.

"Any one disobeying these rules shall be punished."

Truth That Is Stranger Than Fiction.

Talking of the proneness of the average man to imagine that "motorcycle" means only the motor bicycle, a veteran rider in conversation with a BICYCLING WORLD man, in remarking that the mistake is easily accounted for, drew attention to a fact that is as surprising as it is true.

"Why," he said, "nine-tenths of the people who took up cycling within the last ten years have never set eyes on a tricycle. Many of them, I dare say, have never even seen a picture of one, and would hardly know a tricycle if they saw it. They know only the bicycle, and the sight of a tricycle, with or without a motor, would be in the nature of a curiosity. Naturally enough, when motorcycles are now mentioned their conception carries them only to the bicycle."

It is a remarkable state of affairs that has not before been remarked and yet is literally correct.

Wilmot, of Fall River.]

It requires no physiognomist to tell that the original of the accompanying portrait—W. D. Wilmot, of Fall River, Mass.—is brimful of aggressiveness and nervous energy.

His face reflects it in every line, and those who know the man know that his face does not belie him. He is a splendid type of cycle dealer. Luck plays no part in his business. He has brain and he uses it. He is always thinking, always planning, always wide awake; always reading, always seeking and reaching out for that which improves. He is tireless in his activity, twenty years of riding and "talking bicycle" having diminished his ardor not an iota, for it was all of twenty years ago when Wilmot, then a prescription clerk in an apothecary store at Framingham, Mass., purchased a Standard Columbia and became the first rider in town. He soon secured the agency for Columbia bicycles, and before long had sold enough wheels to organize the Framingham Bicycle Club. His persistence in riding daily in all kinds of weather for the first two years was the subject of cartoons and jokes in THE BICYCLING WORLD and other papers at the time.

He took great pleasure in practising trick riding, and was soon known as one of the best and most original. He joined the old Massachusetts Bicycle Club, and was selected as one of four members to establish a record for a club run of one hundred miles or more, and they rode 118 miles, receiving four gold medals. The other three members were Messrs. Griffiths and Philbrick and Captain Henry Williams.

His trick riding soon brought him in demand at club balls, etc., and the Pope Manufacturing Company secured him to take charge of their riding schools. Colonel Pope presented to him an elegant Expert Columbia, with gold-plated trimmings, that cost \$325. Mr. Wilmot used this bicycle in his double riding act eleven years. After about

two years in the employ of the Pope company he gave up teaching for the large salaries to be had at rinks and theatres, and later went to Europe, where during seven years he was constantly employed in all the leading theatres, and where he was presented with many beautiful medals.

After his return Colonel Pope urged him



W. D. WILMOT.

to again enter the commercial part of the bicycle business, and, finishing his theatrical work at Keith's New York theatre the last week of April, 1896, he opened a large store at Fall River and secured the Skating Rink for a riding school the following week.

From the beginning he has been an original and constant advertiser every day in the year that the newspapers are printed. He has always made a strong point of prompt and careful repairs, and has added many

side lines, such as sporting goods, typewriters, sewing machines and talking machines, all over the country and by the Pope company at Hartford, Boston and other large cities. One of his phonograph advertise-

He was the original writer of a series of six "Winter Offers" that have been copied, reprinted, with favorable comment, by "Printer's Ink," and one of the big musical instrument concerns in Chicago bought a large number of copies of "Printer's Ink" showing the plan of selling phonographs and sent them to their agents. Through square dealing, prompt service, continual advertising, a large stock and close personal attention he has built a steadily growing business, and has no complaint to make of the present season. He is an active rider and captain of the Quequetteant Wheelmen, Fall River's leading bicycle club. Just now he is having a series of cards printed, with routes to different places within from twenty-five to fifty miles from Fall River, for free distribution, and particularly for touring wheelmen. He is always glad to meet wheelmen passing through town, and has a washroom, brushes, pump, graphite, oil, etc., for their free use. He is a strong advocate of the bevel gear and an expert in the care and adjustment of all kinds of chainless bicycles.

Can Be Too Clean.

There is an old maxim—and a good one—among the older riders that you can clean your cycle too often. This does not apply, of course, to the wheels, spokes and nickelled parts, but rather to the bearings, around which a coating of dust and grease will always congregate or settle. It is a great mistake to be continually wiping this coating away, as it really forms an excellent protection for the bearings, preventing the dust from penetrating further. Of course, the bearings require an occasional sluicing out with kerosene, but even though given a good dose of lubricating oil it will be found that as a rule they grind somewhat until they have again got into running order—a proof that until they get their protective coating outside of dust and grease grit occasionally works in.

A PERSONS PRODUCT.

UNEQUALLED ANYWHERE AT ANY PRICE.

PERSONS MANUFACTURING COMPANY, WORCESTER, MASS.

PHILADELPHIA FIRST

Throws Open Its Parks to Motorcycles and All Other Automobiles.

Despite the fun poked at her, Philadelphia is not so very slow, after all.

While other cities have been discussing the question whether motor vehicles should be admitted to their parks the Quaker City has taken the bull by the horns and rescinded the rules that have hitherto operated so hardly on owners and users of these vehicles. Hereafter all the drives of the big playground—with two unimportant exceptions—will be open to all types of vehicles, automobiles and motorcycles as well as bicycles and horse-drawn carriages.

This decision was reached last week at a meeting of the Commissioners of Fairmount Park, and was the outcome of a long and vigorous fight that had been waged. Until the resolutions adopted at this meeting took effect, on Saturday last, the privileges granted motor vehicles might almost as well have been withheld. In fact, the permission to use one or two short drives that went nowhere proved to be only an aggravation of the matter. Hence the strenuous efforts to secure the free and unrestricted use of the drives, subject to such regulations as governed other vehicles.

It was known that the Park Commissioners were divided on the subject, one or two of them being utterly opposed to granting any privileges. These members fought for delay, and succeeded in postponing a settlement of the question all through the spring and summer. With the passing of the summer months, however, all expedients tending toward delay were exhausted and the matter soon thereafter came to a head.

At the meeting of the Commissioners considerable discussion took place, and efforts were made to ward off the inevitable by excluding the motor vehicles from certain drives that were important and even necessary. They all met with failure, however, and a vote was finally taken on the following resolutions, which were adopted:

"Resolved, That automobiles for the conveyance of passengers be permitted to use all the Park drives, with the exception of the Wissahickon Drive and the West Side River Drive from the Girard Avenue Bridge to the Falls, subject to the regulations now established for the protection of the public.

"Resolved, That no automobile shall be used in the Park after October 15, 1900, unless it displays a number on the back of the vehicle. Numbers will be issued without charge upon application to the secretary of the Park Commission."

Superintendent Vogdes was informed of the action of the Commissioners, and instructed to notify the guards that the restrictions on motor vehicles had been withdrawn. Secretary Martin of the Commission will procure small blocks with figures painted in

white on a black background and so arranged that automobilists may hang them on the rear of their vehicles while driving in the Park and leave them off at other times. The numbers, which will be furnished to automobilists by the Park Commissioners free of charge, will be ready a few days before October 15.

Of the two drives excluded, one, the West River Drive, will, it is expected, shortly be turned into a speedway; it has been constructed but a few years, and is not an important link in the system of roads which intersect the Park. The latter remark applies equally to the Wissahickon Drive, and, in addition, it is of such a winding and hilly character, skirting as it does the stream from which it takes its name, that it would be folly to mix the two classes of vehicles on it, at this stage at least.

Plaster of Paris Moulds.

Plaster of Paris is often used in shops to hold parts together in handling or for other purposes. To prevent it settling too quick when time is needed for placing the parts to be held, mix it in pure glycerine instead of water. It will not set quickly, and is all the tougher when it does set. Use more or less glycerine, according to the time required in handling.

Looking for a Purchaser.

An inspection of the old Lozier plant at Thompsonville, Conn., was made last week by representatives of the American Bicycle Company, the Thompsonville Board of Trade and the Goodson Graphotype Company. There is a strong probability that the latter concern will purchase the property.

Method of Case Hardening.

This alleged quick method of case hardening comes from abroad: Use one part of oxalic acid and two parts of common potash, well pulverized and thoroughly mixed. Heat the article to a cherry red and roll it in the mixture; heat again in a clear fire and cool off in water.

MORROW

COASTER AND BRAKE.

Over **100,000** Sold
Last Year.

Everyone Giving Satisfactory
Service.

Make Your Cycle Saleable and
Desirable by Fitting it with
the MORROW.

ECLIPSE MFG. CO., ELMIRA, N. Y.

NEW YORK BRANCH:
105-107 Chambers Street.

1892

1901

(Oldest Pedal Manufacturers in America)

We are still doing business at the old stand and propose continuing to do so for sometime to come

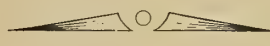
Curtis Pedals

FOR

1901

Will maintain the reputation they have always had ♣ That's the best we can say for them ♣ ♣ ♣

We are now ready to talk prices ♣ and make contracts ♣ ♣ Are you? ♣ ♣ ♣


Reed & Curtis
Machine Screw Co.
WORCESTER, MASS.

The Week's Exports.

Exports of bicycles and material from the port of New York for week ending October 2, 1900:

- Antwerp—1 case bicycles, \$25.
 Africa—91 cases bicycles, \$2,435; 1 case bicycle material, \$27.
 Argentine Republic—4 cases bicycles, \$236; 26 cases bicycle material, \$1,988.
 Brazil—6 cases bicycles, \$180; 3 cases bicycle material, \$269.
 British West Indies—15 cases bicycles, \$422; 8 cases bicycle material, \$141.
 British Possessions in Africa—160 cases bicycles, \$7,371; 15 cases bicycle material, \$535.
 Bremen—3 cases bicycle material, \$105.
 British East Indies—116 cases bicycles, \$4,470; 10 cases bicycle material, \$1,197.
 British Australia—4 cases, \$98; 1 case bicycle material, \$17.
 British Guiana—13 cases bicycles, \$576; 2 cases bicycle material, \$50.
 Central America—1 case bicycles, \$12; 1 case bicycle material, \$16.
 Copenhagen—4 cases bicycles, \$189; 34 cases bicycle material, \$863.
 Christiania—4 cases bicycles, \$200.
 Danish West Indies—1 case bicycles, \$20; 13 cases bicycle material, \$100.
 Dutch West Indies—1 case bicycles, \$38.
 Dutch Guiana—5 cases bicycle material, \$153.
 Ecuador—1 case bicycle material, \$29.
 Helsingfors—2 cases bicycles, \$100.
 Glasgow—2 cases bicycles, \$60.
 Genoa—2 cases bicycles, \$70; 3 cases bicycle material, \$135.
 Havre—13 cases bicycle material, \$250.
 Hamburg—7 cases bicycles, \$172; 9 cases bicycle material, \$268.
 Liverpool—1 case bicycle material, \$25.
 Liege—197 cases bicycle material, \$1,544.
 London—221 cases bicycles, \$3,126; 30 cases bicycle material, \$1,022.
 Philippine Islands—2 cases bicycles, \$110.
 Piraeus—2 cases bicycles, \$57.
 Rotterdam—12 cases bicycle material, \$496.
 Southampton—1 case bicycles, \$16; 2 cases bicycle material, \$30.
 St. Petersburg—1 case bicycle material, \$160.
 Trieste—1 case bicycles, \$25; 6 cases bicycle material, \$75.
 Uruguay—2 cases bicycles, \$90.
 Venezuela—3 cases bicycle material, \$100.

Wants Some of Major's Glue.

Deputy Sheriff Murray has received two executions against the Major Cement Company, of 461 Pearl Street, this city, in favor of Charles A. Wilson for \$1,627, and William J. Watt for \$374. The business was started in 1876 by A. Major, and the present company has carried it on since November 10, 1896. It was incorporated under New York laws, with a capital stock of \$10,000. The annual report filed in February last showed assets of \$8,000 and liabilities of \$4,500.

It Righted Itself.

It is astonishing how quickly a thing will go wrong, and then, without any apparent reason, right itself and be as it was originally.

An incident of this sort was noticed recently and seems to be worth recording. A machine that had not been ridden for a week or so was brought out, preparatory to removal to another place. The rear tire was a little too slack, and a hand pump was requisitioned upon to add the necessary air. After inflation, however, when the nipple was unscrewed, all the air rushed out, apparently in great haste to escape from confinement. The check had become jammed and no efforts with the valve cap availed to release it.

As it was becoming dark, and there was but a short distance to go, it seemed scarcely worth while to take the valve out or to hunt up a repairer. So the machine was ridden for about a couple of miles with the tire deflated and without any damage resulting. This done, it was consigned to a store-room overnight.

The next morning it was brought out, with the expectation that the valve would have to be removed and cleaned and the check released. From force of habit, however, the tire was inflated and the nipple unscrewed, in the full expectation that the air would pour forth as before. Just the contrary happened, however. Not a particle of air escaped, the valve was perfectly tight, and it was hard to believe that the occurrence of the previous evening was not a dream.

A Trick Worth Knowing.

Why do you tickle the float of your carburettor so as to start your motor? asks a motocyclist well posted in the game. No doubt the majority of "chaffeurs" think it is a defect of the carburettor, but it is quite natural.

At a high speed of the motor the vacuum created by the piston is almost instantaneous, and the air rushes on the surface of the spirit and creates a considerable spray. But when the motor is only starting the air flows very slowly through the carburettor, and therefore the mixture does not contain sufficient gas to be explosive. The fact of weighing on the float causes the spirit to overflow, and the amount of gas is thus increased.

The same result can be obtained in a different way. If a piece of rag is impregnated with spirit and put in part of the tube through which the air is drawn to the carburettor, the motor, instead of sucking in pure air, draws in the vapor of the spirit which impregnates the rag. A motor can often be started in this way when the supply of the carburettor is insufficient.

The Iver Johnson's Arms and Cycle Works, of Fitchburg, Mass., is distributing buttons showing Major Taylor mounted on an Iver Johnson racer. Of the championship races this season the "Major" has already captured the one-quarter, one-third, one-half and two-mile events.

The Retail Record.

CHANGES.

- Pomona, Cal.—J. C. Johnson, sold out.
 Plattsburg, N. Y.—Honsinger & Jerry, sold out.
 Colorado, Tex.—Charles H. Townsend, sold out.
 Bradshaw, Neb.—J. A. Buckmaster, sold out.
 Rochester, Penn.—Frank E. Gray, repairing, closed.
 Clinton, Ind.—O. O. Craft, succeeds Craft & Swinehart.
 Grand Rapids, Mich.—Cycloid Cycle Company, sold out.
 Northampton, Mass.—Tidd, Bridges & Co., out of business.
 Southington, Conn.—E. W. Hazard, succeeds G. W. Smith.
 Upper Alton, Ill.—C. N. Streeper, succeeds I. N. Streeper & Son.
 Campello, Mass.—E. B. Pratt, Main and Chestnut streets, closed.
 East Douglas, Mass.—Walter Fairfield, removed to North street.
 Buffalo, N. Y.—Finn & Sullivan Company, succeeds Finn & Sullivan.
 Blunt, S. D.—Howard Brothers, succeed Howard & White Brothers.
 Michigan City, Ind.—J. E. De Wolfe, succeeds W. O. H. Davis & Co.
 Bath, N. Y.—J. Curtis, removed from the Ives Block to the Purdy Block.
 Springfield, Mass.—Millard & Wilbur Company (not incorporated), selling out.
 Greenwich, Conn.—A. M. Poindexter, entered into partnership with C. J. Ferris.

EMBARRASSMENTS.

New Britain, Conn.—Doherty & Lavoie, closed by sheriff.

MORTGAGES, ETC.

- Jacksonville, Fla.—Florida Cycle Company, suits \$850.
 Detroit, Mich.—Joseph Davis, chattel mortgage renewed, \$320.

FIRES.

- Florence, S. C.—J. D. Trevathan.
 Elizabeth City, N. C.—Peter Spire, loss small.
 Browns Valley, Minn.—William Redetzke.

BURGLARIES.

- East Orange, N. J.—Frederick L. Knapp, No. 340 Main street, two bicycles stolen.

NEW STORES.

- Hempstead, L. I.—August Porrier, Main and Franklin streets.

Recent Incorporations.

East Orange, N. J.—The National Frame and Metal Company, with \$60,000 capital, \$1,000 paid in, to manufacture frames and other parts of bicycles; incorporators, Charles A. Fox, John S. Kaufman and O. T. Seymour.

Buffalo, N. Y.—Niagara Pedal Company, with \$10,000 capital. Directors—Willard Parker and M. H. Wright, Buffalo, and H. A. Smith, Chicago.

BUT ONE BRAKE

Old Types Falling Into Disfavor Owing to Popularity of Coaster-Brakes.

Owing to the extensive use of the coaster-brake, riders of to-day are much better equipped with brakes than for a long time past. Yet even now it seems to be only in conjunction with the coasting feature that the cyclist will permit himself to be fortified with this safeguard.

In fact, it actually seems as if brakes of other kinds were more in disfavor than ever. On the present season's output of new machines it is probable that the proportion of brakes—other than coaster-brakes—was smaller than ever before, if such a thing were possible. The fitful attempts to evolve a satisfactory brake or to push those already on the market which were held to come nearest to filling the bill in this particular certainly have not been greater this year than usual; if there has been any change it has been in the other direction.

It is even more evident that the majority of makers have not taken as much trouble as usual to supply some kind of a brake. In the past the sum of these efforts was usually the fitting of a hand operated spoon brake working on the front tire, and while it was about as inefficient—considered as a means of regulating the speed on down grades—as could well be imagined, it was at least equivalent to making a "bluff" in this direction. But even this half hearted attempt to provide the rider with a brake—nearly always against his will—appears to be on the decline.

It is not altogether surprising that this should be so. The maker can hardly be blamed for not going to the expense of fitting a brake when he is plainly told the rider does not want it—although this operates hardly on the not inconsiderable number who want good brakes and want them badly. For the matter of that, the maker thinks he is hardly used when he has to supply a brake and does not get anything extra for it.

At the present time he is very apt to take the position—sound enough in most particulars—that for any one who wants a brake, and is willing to pay for it, there is the coaster-brake ready at hand. It is far and away the most efficient and reliable brake—viewed merely as such—on the market, and should be chosen for that fact alone, to say nothing of that being but one-half its excellencies. This being so, why should he furnish any other brake at all?

Whether the argument is altogether sound, or whether it covers the whole case, these may be open questions. But there appears to be little doubt that they will be answered in the affirmative in a large majority of cases. Consequently, other forms of brakes are in for a period of even greater neglect

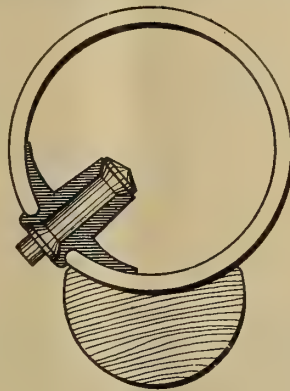
than the one they have been passing through.

It must be admitted that this outcome is not one to be condemned too sweepingly or too readily. If the disappearance of the old types of brakes meant the complete absence of speed reducers on modern machines, there could hardly be two opinions on the subject.

But far different is the case. In place of these apologies—and frequently where they were never used—is found a real brake, one that will check the speed or stop the machine entirely on the steepest hill. That alone is worth much more than everything else.

Here's An Attractive Valve.

It is so long since anything new in tire valves has developed that change has appeared improbable if not impossible. This seeming assurance has been disturbed, how-



ever, by the American Pneumatic Valve Company, of Buffalo, N. Y., who have begun the manufacture of the Pickett two-part valve, shown by the accompanying illustration.

As will be noted, it is a radical departure from the type in general use, but for all of that it has much to commend it to attention. The two parts are made of rubber, the valve being substantially a part of the tire itself. No metal parts are employed and no valve hole in the rim is necessary, the Pickett valve being located in the under side of the tire; if the tire creeps the valve creeps with it, and cannot be injured or affected.

The valve stem or plug is flexible; to inflate the tire a slender metal pump nipple is inserted, forcing aside the plug, the flexibility of which permits it.

The extreme simplicity and cost of the valve are expected to appeal to the trade; it is claimed that it can be made for less than the rubber nipple used with the metal valves now in use. It is claimed to be absolutely airtight, that it is always get-at-able, and easy to clean or repair—claims that, on appearance at least, seem reasonable.

Frank N. White, now of No. 127 Duane street, New York, and once one of the best known figures in the tire trade, is interested in the valve and is showing it in the metropolitan district.

"Motocycles and How to Manage Them." The name explains the nature of the book. Price 75 cents. For sale by The Goodman Company.

STILL THE BANE

Spring Devices Necessary In Motorcycle Construction—Absorb Vibration.

It is not going to be the easiest thing in the world to obtain the requisite strength in motorcycles without getting entirely too much vibration. The latter evil is present in even more pronounced shape as it is, owing to the presence of the motor.

When the greater speed attained is also taken into consideration, it is easy to see why the machine should jump about as it does when traversing roads that are at all bumpy. Indeed, on some of them it taxes the rider to keep on the saddle, and the wonder is that the machine is not upset. Of course, there is always the reduction of speed as a remedy, but this is not a pleasant alternative when the exhilaration of rapid flight is considered.

It may be said that spring devices are at hand, and that their fitting is a much more easy matter than is the case with the ordinary bicycle or tricycle. This will be readily granted, and it is very probable that recourse will be had to springs as a partial relief from what would otherwise be an intolerable situation. Already the acme of luxuriousness has been reached in saddles, and those used on some of the up-to-date motorcycles quite put the bicycle saddle to shame. Everything that is possible in this direction will undoubtedly be done.

But springs will add to the already great weight and complexity of the motorcycle. Undoubtedly the greatest efforts after motorcycles get down to some sort of a standard will be to materially reduce the weight; and when such a movement gets well under way it will not be easy for springs to make much progress. It may be, though, that they will have become well entrenched before the lightening process gets well started.

Points of Difference.

There are so many different elements entering into the running of machines that it is almost impossible to rig up two of them so as to be exactly alike; much less is it practicable to make an accurate estimate of the capabilities of machines that are made to participate in impromptu coasting matches.

From experiments said to have been made by the Gladiator Company, of Paris, it is calculated that with a tire with the tread the thirty-second of an inch thicker than another there is undoubtedly two or three seconds difference in 333 metres.

Other points entering into the calculation are a few pounds per square inch more pressure of inflation, difference in total weight of system, i. e., cycle and rider; position of rider, the condition of the bearings, i. e., whether properly adjusted or purposely left loose; the condition of the chain, etc.

Says Motor Vehicles Are Not Nuisances.

Is the motor vehicle a public nuisance or an improved method of locomotion? Should it be banished from the public highways or admitted to them as an honored user thereof?

These were the questions propounded to an intelligent New Jersey jury last week and supported by arguments and evidence by the respective supporters of the widely differing assertions. But, although the law was expounded and made clear by a learned Justice of the State's Supreme Court, and the question reduced to one of fact, the jury was unable to reach a conclusion. After twenty-three fruitless ballots, with an agreement apparently as far off as ever, the Court had no recourse but to discharge the perplexed jurymen.

The case was one brought in the Bergen County Court at Hackensack, N. J., and Justice Jonathan Dixon, of the New Jersey Supreme Court, in charging the jury, interpreted the law bearing upon the issue raised. As the question depends not upon the construction of statutes but upon the application of principles of common law, the Justice's analysis applies with equal force in other States.

The suit was for damages for the death of Mrs. John L. Guyre, who died from injuries received by being thrown out of her carriage at Midland Park, N. J., her horse having taken fright at a motor vehicle operated by Dr. William L. Vroom.

The prosecution having made the contention that the motor vehicle was a nuisance and had no rights upon a public highway, Justice Dixon charged as follows:

"The question is whether the machine driving along the country roads without a horse in front and discharging steam behind is so likely to frighten a horse on the highway and thus endanger the road as to constitute the machine a nuisance.

"It is argued that it is an improved method of locomotion, but it does not follow that it is to be tolerated. The right to drive horses along the highway is an established right, a common right, and if a modern method of locomotion is used of such a nature that it commonly brings discomfort and danger to those exercising the common right, the established right of travel on highways, then it is a nuisance and cannot be tolerated.

"But it does not follow it is a nuisance because it occasionally or exceptionally frightens horses. That would not make it a nuisance. In order to make it a nuisance its common effect must be to substantially interfere with the people who drive horses along the highway.

"It is of such a nature that it is so likely to frighten horses and thus endanger travelers on the highway as to make it a nuisance or is it only its exceptional effect? If it is its common effect, then it is a nuisance; if exceptional effect, it is not a nuisance.

"If this method of locomotion is a common nuisance, and was the approximate cause of death, then the defendant is responsible."

Deceptiveness of Gradients.

How many motocyclists are there who are able to tell, even approximately, the steepness of the gradient which they are sometimes just barely able to climb? If they hazard a guess they nearly always err on the side of steepness, imagining the rise to be much greater than it really is.

As a matter of fact, a rise of one in five is almost never encountered, even in this country, on what with any degree of truth may be termed a highway. Indeed, one in ten is an extraordinarily sharp incline to be maintained for any considerable distance, and such road building as this would not be tolerated in European countries.

In France the main roads are graded to one in twenty as the steepest gradient, while in England they are content to have hills of one in sixteen and even one in ten for a few yards, or a few hundred yards, in many miles of nearly level main roads. Double the number of horses or more have to be sent with heavy loads than would be required if this short bit of road were improved, and this unnecessary power is a very serious expense.

England's Exports Still Declining.

The cycle export trade of Great Britain shows no improvement. The August shipments reached a total of only £40,610, as compared with £41,006 in the previous month and £47,734 in August last year.

Exports Show Slight Symptoms of Steadying.

Japan and the Philippines continue the bright spots in the export table, as the statistics for August show, although British Australia also made a spurt of some \$6,000 as compared with the same month of 1899.

It is about the first time, too, that the exports to Great Britain have developed symptoms of steadying, the figures for the corre-

To Test a File's "Bite."

In the matter of file testing, if one has the chance to "shove" the tool under working conditions, it is the best way to test the sharpness. But there is another way which is quite good, and, within limits, is helpful to the buyer—although it was learned from a seller. This looks to the so-called "angle of repose" of a block of metal resting upon the file, while the latter is inclined to the horizontal. Thus, suppose you have two files, one of which will keep a flat metal block from sliding when it is at a certain angle; while the other, when it is inclined at a greater angle, will keep the same block still; then the second one will have the sharper teeth of the two. The maximum angle at which the file lies to the horizontal while keeping the block in place through the "bite," does not quantitatively measure the sharpness of the file teeth; but it is a pretty good straw by which to judge the wind, and better than the usual thumb tests made over a shop counter.

Case Hardening Mixture.

The following mixture is used by some for case-hardening: Three parts of bichromate of potash and half a part of sommon salt, well pulverized and mixed. Heat the metal to nearly a white heat, sprinkle the mixture on, frying it well in, and then plunge in cold water.

spending two months being very nearly equal.

For the eight months ending with August Japan, Cuba and the Philippines are the only countries that show increases, but Cuba's does not represent recent shipments, the totals for August alone showing a shrinkage of more than \$15,000 during the twelve-month. The figures follow:

	August		Eight months ending August		
	1899. Values.	1900. Values.	1898. Values.	1899. Values.	1900. Values.
United Kingdom.....	\$26,646	\$26,323	\$1,511,300	\$605,164	\$374,546
France	7,295	7,273	455,249	393,988	172,880
Germany	12,936	6,155	1,317,323	718,451	309,870
Other Europe.....	25,243	15,291	816,913	800,614	575,300
British North America.....	11,779	10,703	541,674	502,134	336,613
Central American States and British Honduras.....	405	258	4,969	3,819	1,044
Mexico	2,967	849	45,216	32,707	10,761
Santo Domingo.....	—	24	598	298	152
Cuba	17,366	1,813	3,345	49,842	63,377
Porto Rico.....	636	—	1,230	2,234	1,461
Other West Indies and Bermuda	5,830	4,934	53,848	46,238	32,751
Argentina	26,015	1,544	70,452	200,762	61,538
Brazil	3,899	839	76,161	23,397	14,351
Colombia	1,157	103	6,390	6,108	3,400
Other South America.....	7,348	3,204	32,376	41,893	30,705
China	3,143	1,672	14,827	16,225	17,966
East Indies—British.....	11,480	5,154	93,880	79,619	42,547
Hong-Kong	700	1,260	6,436	6,390	5,785
Japan	21,621	21,913	93,585	67,491	182,181
British Australia.....	16,287	21,670	153,253	157,024	154,182
Hawaii	6,058	—	—	35,842	32,473
Philippine Islands.....	—	10,715	—	958	39,645
Other Asia and Oceania.....	1,283	2,136	54,333	29,001	20,532
Africa	7,138	5,501	117,447	130,812	33,300
Other countries.....	20	40	1,699	274	357
Totals	\$217,252	\$149,374	\$5,472,504	\$3,951,285	\$2,517,717

The Week's Patents.

THE WEEK'S PATENTS.

658,338. Vehicle Wheel. Joseph N. Byers, Urbana, Ohio. Filed Aug. 7, 1899. Serial No. 726,391. (No model.)

658,493. Joint for Cycle Frames. James R. Trigwell, London, England. Filed Dec. 28, 1897. Serial No. 663,896. (No model.)

658,501. Bell. Albert B. Hunn, Bristol, Conn., assignor to the New Departure Bell Company, same place. Filed Jan. 11, 1900. Serial No. 1,056. (No model.)

658,595. Internal Combustion Motor. William E. Simpson, London, England. Filed April 26, 1900. Serial No. 14,489. (No model.)

658,624. Bottom Bracket. Giuseppe Egger, Trieste, Austria-Hungary. Filed Feb. 6, 1899. Serial No. 704,713. (No model.)

658,717. Mechanism for Propelling Railway Velocipedes, Boats, etc. Gunnar Tjerneld, Carlstad, Sweden. Filed Dec. 28, 1897. Serial No. 663,830. (No model.)

658,718. Speed Mechanism for Bicycles. John A. Cardinelli, San Francisco, Cal. Filed Sept. 26, 1898. Serial No. 691,848. (No model.)

658,400. Crank Hanger. John E. Roberts, Jamestown, N. Y., assignor to the Straight Manufacturing Company, same place. Filed Nov. 27, 1899. Serial No. 738,435. (No model.)

658,406. Interlocking Bicycle. Oscar I. Straus, U. S. Army. Filed Aug. 5, 1896. Renewed Feb. 24, 1900. Serial No. 6,414. (No model.)

658,424. Cycle Crank Mechanism. Patrick H. Brennan, Syracuse, N. Y. Filed Aug. 28, 1897. Serial No. 649,899. (No model.)

658,429. Luggage Carrier. Joseph Dembinski, Buffalo, N. Y. Filed May 3, 1900. Serial No. 15,315. (No model.)

658,471. Vulcanizing Press. Frank A. Seiberling, Akron, Ohio, and Alexander Straus, New York, N. Y.; said Straus assignor to the Goodyear Tire and Rubber Company, Akron, Ohio. Filed Dec. 9, 1898. Serial No. 698,645. (No model.)

658,472. Vulcanizer. Frank A. Seiberling, Akron, Ohio. Filed Mar. 14, 1900. Serial No. 8,591. (No model.)

658,624. Velocipede Brake. Henry A. Lamplugh, Birmingham, Eng. Filed Dec. 18, 1899. Serial No. 740,767. (No model.)

658,742. Bicycle. Francis J. Stallings, Effingham, Ill., assignor of one-eighth to Caroline Stallings, same place. Filed Nov. 22, 1897. Serial No. 659,410. (No model.)

658,743. Gear Wheel Transmission. Erwin von Trautvetter, Cincinnati, Ohio, assignor of three-fourths to Charles E. Babbit, Winthrop S. Sterling and Christian R. Holmes, same place. Filed Dec. 19, 1898. Renewed July 28, 1900. Serial No. 25,142. (No model.)

Design Patent.

DESIGN PATENT.

33,251. Fork for Bicycles or Like Tubular Frames. Albert M. Price, Chicago, Ill., assignor to William H. Fauber, same place. Filed Oct. 7, 1899. Serial No. 732,978. Term of patent, 7 years.

Chains Should Not Break.

As a salve for lacerated feelings, caused by his having to walk some eighteen miles on account of a broken chain, an English physician was recently awarded \$3.12 damages, this being the price of a new chain. He brought suit against the makers of the bicycle, and although it was shown that he had changed the gear of his machine from 84 to 106, having had several extra links put in for this purpose, and the defendants claimed that a chain intended for the lower gear would not stand the strain of the higher one, this was held to make no difference.

The resumption of work at the Westfield, Mass., plant of the American Bicycle Company, only awaits the arrival of certain kinds of stock. As soon as it comes the factory will start up with a full complement of employees.



SARTUS
BALL RETAINER
(The Original)
BEST ANTI-FRICTION.

618 BROADWAY, NEW YORK.

AUTOMOBILES
WHAT ARE THEY AND WHAT WILL THEY DO?
Is completely answered without the use of technical language, and a reliable directory of makers of motor-vehicles and their parts is given in a special number of
THE MOTOR AGE
THE AUTOMOBILE AUTHORITY OF AMERICA
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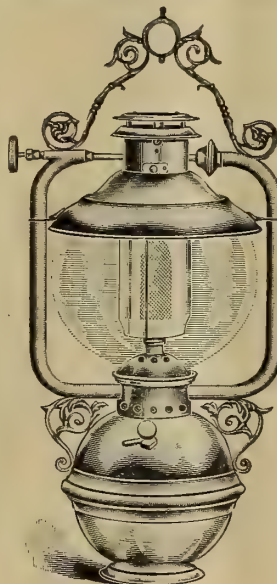
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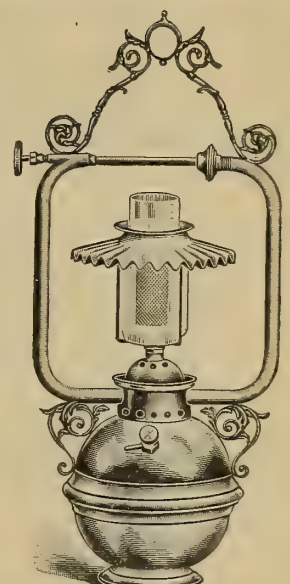
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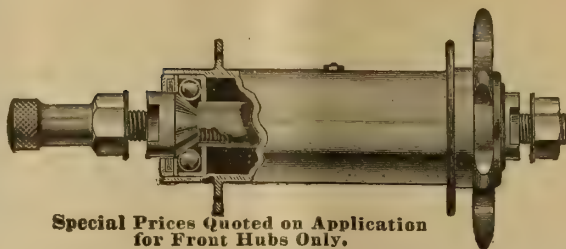
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Lv. Boston	10.45 A.M.	2.00 P.M.
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" Rochester	9.40 "	1.30 "
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" Chicago	11.50 "	4.00 P.M.

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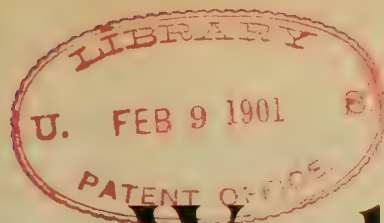
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The Bicycling World

ANL MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., October 11, 1900.

No. 2.

PEACE REIGNED

A. B. C. Meeting Passes Without Expected Upheaval—Officers All Re-elected—Year's Profits Exceed \$600,000.

As between the American Bicycle Company and the rest of the trade, the joke is on the latter.

For weeks talk has been of what would happen at the annual meeting. It was confidently predicted that there would be a mighty reconstruction; "combinations" were being formed; the "Pope interests" were said to be arrayed against the "Coleman interests" and a fierce tug of war and general upheaval was anticipated.

But the annual meeting of the big corporation has occurred and all the prophets have been put to flight, and their prophesies set at naught. Absolutely nothing in the nature of an upheaval transpired; if any friction developed no inkling of it has been permitted to escape, and from the outside, at any rate, everything appears as smooth and tranquil as a calm sea scene.

The "something" that was to happen was booked for the directors' meeting, which followed the stockholders' meeting on Tuesday. At the latter gathering everything was commonplace. The president and the treasurer submitted their reports and five one-year directors were re-elected, after which the meeting adjourned.

The Board of Directors then got together and although their deliberations were suggestively protracted, being carried well over into Wednesday afternoon, absolutely nothing untoward occurred as far as known. Even the expected shifting about of the officials, which seemed certain, did not come about, each of the present incumbents being re-elected, as follows:

R. Lindsay Coleman, president; George Pope, vice-president; J. E. Bromley, second vice-president; T. F. Merseles, third vice-president; A. L. Garford, treasurer; C. W. Dickerson, secretary. R. Lindsay Coleman, Colonel A. A. Pope, H. A. Lozier, George F. Crane and George Pope, executive committee. Colonel A. A. Pope was also made chairman of the Board of Directors.

Absolutely the only change made was the election of George F. Crane, of Baring, Magoun & Company, to the vacancy in the executive committee, caused by the death of R. Philip Gormully.

No one was elected to fill Mr. Gormully's place as a three-year director; that vacancy is still open; the Board, therefore, consists of but fourteen members.

The following resolution appropriate to the death of Mr. Gormully was also passed:

Whereas, since its last meeting, this Board has lost a valued member, in the death of R. Philip Gormully,

Resolved, that we record upon the minutes an expression of our profound appreciation of his sound judgment and wisdom in counsel; his loyalty, devotion and invariable courtesy as a business associate; and his uprightness, usefulness and worth as a citizen.

Further Resolved, that a copy of these resolutions, suitably engrossed, be tendered to his family as a tribute to his memory, and a slight token of our sincere regret and sympathy.

While the election passed off without change of officers, it is by no means improbable that changes will not occur a little later. It is positively known that at least one of the titled officers has been anxious to retire, and now that appearances have been maintained, his resignation does not seem unlikely.

As now constituted the Board of Directors is composed of the following:

While THE BICYCLING WORLD was last week able to foretell that the annual report would show a profit, it is safe to say that none not on the inside were prepared for a profit of the size shown, \$605,579 71, which is but some \$95,000 less than the full year's 7 per cent dividend on the preferred stock.

The figures were given out shortly after the annual meeting of the stockholders at the legal offices in Jersey City on Tuesday last.

Among the stockholders present at the meeting were President R. Lindsay Coleman, Colonel A. A. Pope, H. A. Lozier, J. W. Kiser, A. Featherstone, T. B. Jeffery, R. S. Crawford, E. C. Mealey, J. W. Spalding, A. W. Gump, L. B. Gaylor, W. T. Black, Colonel George Pope, C. W. Dickerson and W. A. Redding.

About the only other business transacted

(Continued on page 24.)

JOBBERS JOINED

Boston Trade Organizes—What They Hope to Accomplish and How.

Under the title Boston Cycle Jobbers' Association the Boston jobbing trade finally completed its projected organization on Monday night last.

George F. Kehew, of the United Supply Company, was chosen president, and William S. Atwell, of William Read & Sons, secretary.

Excepting the John S. Leng's Sons Company, whose representative was called out of town at the last moment, all of the city's best known and most reputable jobbing houses were in attendance and enrolled themselves, as follows: The United Supply Company, the Iver Johnson Sporting Goods Company, William Read & Son, Brown & Wales, Bigelow & Dowse, the E. P. Blake Company and George D. Boles.

At the meeting a great deal of time was given to discussing the ruinous effect certain cut-price and job-lot jobbers have in the past had on the retail as well as the wholesale trade in New England, and what is considered a satisfactory plan of co-operation with manufacturers who desire to check such methods and to protect honest competition was outlined: the co-operation of the manufacturers will be sought. The association aims to keep in close touch with the travelling salesmen who visit Boston, and believes they will find it to their interest to interview President Kehew, at No. 55 Hanover street.

Good feeling prevailed throughout the meeting, and as the result of organization it is expected that the situation in New England will be considerably improved.

Tire Makers Met and Missed It.

The tire manufacturers are still endeavoring to get together again and reach an agreement in the matter of price. They held two sessions in this city on Friday and Saturday last, but failed to reach an understanding. Another meeting is in prospect, however, when, it is believed, a definite arrangement will be effected.

(Continued from page 23.)

after the reading of the reports of the president and the treasurer was the election of five one-year directors. The Board consists of fifteen members, five of whom are elected for one year, five for two years and five for three years. The election did not in any way alter the complexion of the Board, the present incumbents being re-elected: George W. Young, New York; Charles L. Ames, Chicago, Ill.; J. W. Kiser, Chicago, Ill.; Gardner M. Lane, Boston, Mass., and George F. Crane, New York.

PRESIDENT'S REPORT.

President Coleman's report was as follows: "To the stockholders of the American Bicycle Company:

"I present herewith the first annual report of the president of the American Bicycle Company.

"The properties of the various firms and corporations purchased by this company were finally transferred to it on September 22, 1899, and until after that date absolutely nothing definite in the way of organization of the combined concerns could be done. It was then close to the time when samples of new goods and their catalogues should be ready, and salesmen preparing to go on the road for the business of 1900. Many of the individual firms and corporations had these matters practically all in readiness, but others had done nothing toward preparing for the business of 1901. There was no time for complete and permanent organization for concentration of manufacturing and selling interests in order to get the best economical results, and, time being a most important factor, the selling departments were handled as best could be arranged under the circumstances.

"Bearing in mind that the present fiscal year dates from August 1, 1899, the expenses of the company during the earlier part of the fiscal year were in excess of those of the individual companies prior to their coming into this corporation. The executive of the American Bicycle Company, however, immediately began to put into effect economies by concentrating the selling interests, and also the manufacturing of goods, closing certain small factories where the cost of production of goods was excessive, and by various other methods, so that in a short time many of these economies were in force. The full benefit, however, has come to the company for only a short period during the latter part of our fiscal year. All these economies, and others that are being inaugurated as rapidly as possible will be in force during the fiscal year of 1900-'01.

"While the American Bicycle Company was organizing, dealers, in order to make sure that they would have goods to sell, diverted business that otherwise would naturally have come to this company

"The policy adopted by the company in marketing its goods has had a good effect, and we believe that during the coming year the trade will be on a more staple basis than it has for some years.

"The auditing of the various forms and

corporations purchased by the American Bicycle Company has finally been completed, as of the date on which they were taken over by this company; and the claims against the vendors under the contracts for purchase are now being adjusted, and will be pushed to final completion of settlement as rapidly as possible.

"The manufacturing and sale of automobiles has had much attention by the executive of the company, and as our facilities are unequalled for the manufacture and sale of such goods we believe that the company is in a most excellent position to prosecute this branch of the business."

TREASURER SUBMITS THE FIGURES.

Treasurer Garford's report, headed "Statement of Condition August 1, 1900," follows:

QUICK CAPITAL.

ASSETS.

Cash	\$1,072,881 84
Accounts and notes receivable.....	4,432,987 03
Investments in securities, at actual value on August 1, 1900.....	4,004,700 00
(These investments produce an annual income of \$256,475.)	
Merchandise on hand, including finished product, raw material and supplies	5,815,008 07
Unexpired insurance.....	44,537 70
Total quick assets.....	\$15,370,114 64

LIABILITIES.

Accounts and notes payable.....	\$3,280,619 64
Factory, bonds and mortgages—	
Previous to consolidation.....	\$198,457 22
Less paid since September 1, 1899.....	77,457 22
	\$121,000 00
	\$3,401,619 64
Net quick assets.....	\$11,968,495 00

If the amount in accounts and notes payable and receivable is excepted, no item in the report is of more interest than that of stock on hand. The amount, \$5,815,008 07, will undoubtedly create a buzz of comment.

COLEMAN'S CLEVER COUP.

Although the item "Investments in securities," \$4,004,700, does not so state, the bulk of the securities, as is generally known, is stock in the Rubber Goods Manufacturing Company, both common and preferred, the common of which is at the present time netting about 12 per cent and the preferred about 10 per cent; also holdings in the American Wood Rim Company. Considerable of the Rubber Goods stock was, however, recently offered to the stockholders. Under its terms of organization the American Bicycle Company was to retire \$250,000 of its bonds annually, beginning in 1901, but during the year the administration made a quiet and clever coup that has placed the company in a fortunate position in this regard. While the bonds were retireable at 105, when the price of them was driven away down the company went quietly into the market and at the low quotations bought up enough to retire its own bonds for the next three years.

COMPARISONS WITH FORMER FIGURES.

The net earnings of the constituent companies before the amalgamation, as given by the prospectus, were as follows:

1899.	1898.	1897.	1896.	1895.
\$3,983,634	\$3,328,884	\$2,708,867	\$7,763,460	\$5,118,957

This prospectus, which appeared Oct. 1,

1899, affords other interesting comparisons. At that time the total assets were given as \$24,183,744.59, made up as follows: Real estate and buildings, \$3,997,385.67; machinery, tools, etc., \$5,884,624.77; merchandise, etc., on hand, \$7,493,486.46; accounts and notes receivable and investments, \$5,631,715.19; cash, \$1,176,532.50. The liabilities were stated to be \$1,893,594.13.

The item "Plant investment, \$31,502,760.89," as given in Treasurer Garford's present statement of assets, did not appear in the prospectus, so that it is a natural presumption that there was another statement bearing the date Oct. 1, 1899, which was not given to the public.

DIRECTOR TALKS OF PAST AND FUTURE.

Previous to the meeting one of the directors gave out this interview to the financial

press—an interview that is full of interest:

"The last year has been one of concentration and organization for the American Bicycle Company. Next year will be one of results, and in my mind one of great profit to the company. The demand for bicycles has fallen off very heavily this season, and we find ourselves heavily stocked with unsold bicycles.

"The use of the bicycle has probably reached its zenith and is now on the wane. The bicycle as a fad is a thing of the past, but to a greater or less extent it will always be used as a means of transportation.

"The automobile will in time be the universal means of transportation, and the future of the American Bicycle Company rests in the adoption and development of the automobile. We already have two factories making automobiles exclusively, and additional factories will be utilized as the conditions warrant.

"At the moment there is a lack of sufficient working capital to develop and build automobiles. We will, however, realize a large sum for working capital through the sale to our stockholders of the \$1,200,000 common stock and the \$3,000,000 preferred stock of the Rubber Goods Manufacturing Company.

"This offering of Rubber Goods Manufacturing Company guaranteed stock to our stockholders was made not only to raise additional funds, but was offered as a payment for the use of their money upon which

they had not received any return. The directors stand ready to take all the stock not taken by the stockholders—in fact, they would have been pleased to have taken the entire amount.

"The automobile must be developed in the same manner as the bicycle. I have such faith in the successful development of the automobile that I predict that inside of ten years there will be more automobiles in use in the large cities of the United States than there are now horses in these cities.

"The demand at present is enormous, and we are unable with our facilities and capital to supply the demand of our thirty thousand agents throughout the country. Fifteen thousand agents are fairly howling for automobiles. We will direct our attention to the

Have Stood the Test.

In a majority of cases riders have used their coaster-brakes in very much the same manner as they used their pedals, chains, tires or other parts of the machines. Instead of regarding them as an experiment and going very gingerly about making use of them, they coasted when they wanted to and braked when the occasion for so doing arose. They gave the devices no opportunity to play the part of lay figures, but put them to work at once and kept right at it.

In the face of this treatment there could not long be any uncertainty about their future. If the devices had been poorly constructed or if the principle itself were wrong the verdict—and an adverse one—would have been quickly pronounced.

BALANCE SHEET.

ASSETS.

Net quick assets.....		\$11,968,495 00
Plant investment—		
Per statement dated October 1, 1899.....	\$31,502,760 89	
Less miscellaneous sales of factories and machinery closed out since October 1, 1899.....	334,745 61	
	\$31,168,015 28	
Less depreciation.....	1,168,015 28	
		\$30,000,000 00
		\$41,968,495 00

LIABILITIES.

Debentures—5 per cent, due September 1, 1919, in bonds of \$1,000 each, at par.....	\$10,000,000 00
Preferred stock—Cumulative, 7 per cent, in shares of \$100 each, at par.....	\$10,000,000 00
Common stock, in shares of \$100 each, at par.....	\$20,000,000 00
	\$40,000,000 00

SURPLUS ACCOUNT.

Balance	\$1,362,915 29
Net profit, 10 months ending July 31, 1900, after paying interest on bonds.....	\$605,579 71
	\$1,968,495 00
	\$41,968,495 00

automobile costing the purchaser less than \$1,000, as that is the popular price.

"The automobile of to-day does not meet my ideal as yet, but next year we will certainly have a machine near perfection. You will then find my stable, now holding nine horses, transformed to store automobiles, and my horses will be sold.

"The factories we do not need for the manufacture of bicycles we are sub-leasing. Last week, for instance, we sub-leased a factory for \$22,000 a year, and this week we hope to sub-lease another factory at \$20,000 a year rental. These sub-leases are adding materially to the working capital of the company.

"The prices of our shares are ridiculously low for a company of our stability, with factories and real estate valued at \$22,000,000. The company is a large borrower of money for working capital, and until our loans are materially reduced I am opposed, as a director, to the payment of dividends upon the preferred stock, although we have a comfortable surplus from operations."

Rucker is Coming Over.

The well known M. D. Rucker is preparing for another visit to this country. He expects to be able to place on the American market the Otto coaster-brake, which has created something of a stir in the British trade,

But it has been just the other way, and there is not the slightest question that the coaster-brake will enter into larger use than ever next year.

To Test the Theory.

Attracted by the plausible arguments adduced in favor of long cranks and high gears, a Pawtucket (R. I.) man has had constructed for his own use in a Providence shop a bicycle with which he proposes to make a series of extensive and, he hopes, exhaustive tests.

It will have one inch of crank for 15 inches of gear, the cranks being 10 inches long and the gear 150. The front sprocket will have 50 teeth, and its diameter will be 16 inches—more than half the diameter of the regular bicycle wheel. The wheels will be 30 inches in diameter, and the drop of the crank bracket will be 1½ inches below the axles. The rear sprocket will have 10 teeth.

Make a Good Flux.

It is claimed that lathe or drill chips make an excellent flux for welding iron and steel, especially where a low heat is necessary. The chips are dried out and washed in borax, and in this form they are most effective in securing a good weld.

Curtis on Pedal Situation.

One of the trade visitors in New-York last week was A. B. Curtis, of the Reed & Curtis Machine Screw Company, Worcester, Mass. As always, Mr. Curtis was breezy and interesting.

He was asked concerning the movement looking to a combination of or agreement between the pedal manufacturers with which his name has been connected. Mr. Curtis smiled an interesting sort of smile.

"Yes," he said, "my name has been connected with something of the sort, but, profiting by experience, if any agreement is reached or combination effected the parties to it will have to deposit bonds for \$10,000 or \$15,000 before Reed & Curtis will enroll themselves. They are able and willing to do it any time the others are ready."

Talk of the condition of the pedal market led Mr. Curtis to remark further:

"It looks as if some of them are endeavoring to drive prices below bedrock in the hope that the rest of us will drop the pedal business, and thus leave the field to them for the future. But"—and here the Curtis voice took on a more decided tone—"if they think they can drive Reed & Curtis out of the business they'll have to try some other tactics. We were the first in the pedal trade, and I imagine we'll stay in it as long as any of them. We have money to lose, and can do business for fun if the rest of them can, and can probably make things even more interesting than they are now."

And the Curtis attitude left the impression that such an occurrence was not altogether unlikely.

Now Coaster Brake Coming.

The recently organized Buffalo Metal Goods Company, Buffalo, N. Y., has a coaster brake almost ready for exploitation. It is the invention of Charles Barnes, one of the originators of the Barnes bicycle, and is said to be a marvel of simplicity. The company is already making hubs, hangers, handlebars, etc., and the fact that the principals, Messrs. Atherton, Sweet & Angle, are graduates from the bicycle business, will commend the goods to the trade.

Where Maslin's Interests Lie.

J. S. Bretz, head of the newly organized Pretz Cycle Manufacturing Company, of Syracuse, N. Y., was in New York last week, and states that the report that H. E. Maslin, of E. C. Stearns & Co., is interested in his concern is erroneous. Mr. Maslin is, however, interested in the Stearns Bicycle Agency, which will market the Bretz output of Wolff-American bicycles.

Seeks Fire Damages.

One more of the suits of the Chainless Cycle Manufacturing Co., of Rochester, N. Y.—this time against the Security Fire Insurance Co., of New Haven, Conn.—is up for decision. In the Court of Appeals, at Albany, N. Y., last week there was filed the brief of respondent on motion to discuss the appeal.

"We
told
you
so."



WE can't resist the temptation! For we have been telling you so right along, and now note how victory succeeds victory; the ORIENT machine always winners. At the Chicago tournament, behold the ORIENT Autogo ridden by Albert Champion defeats Kenneth A. Skinner on a specially imported French Tricycle and establishes four world's record—1.18 1/3, the fastest mile.

Fast follows the St. Louis event, where five straight races are won by Champion and his ORIENT Autogo.

(We didn't intend to talk about bicycles, but cannot resist mentioning Harry Elkes' wonderful one hour ride at Brockton, October 5th, when on an ORIENT Leader, paced by an ORIENT motor tandem, he smashed the world's record all to pieces.)

Now here is another prophecy: It is going to be just that way with ORIENT dealers. Those who represent the line of ORIENT vehicles are sure to "lead the leaders" the coming year. It is a clear, safe field and competition is weak and wavering.

Visit us at the New York Show in November and see the greatest product of the century. Space "J," N. E. corner of the Garden.

WALTHAM MFG. CO.,
Waltham, Mass.

Orient Bicycles,
Orient Motorcycles,
Orient Autogos,
Orient Victories.

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will be a Feature
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Interested—Many Are. Write Us.

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PEDAL
IS A "PEACH."

FORSYTH MANUFACTURING CO.,

BUFFALO, N. Y.

THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
"The Wheel" and the "American Cyclist."

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, OCTOBER 11, 1900.

Overstock and Outputs.

The publication of a financial report is so new to the cycle trade that the annual statement of the American Bicycle Company, published in another column, will be read and digested with uncommon interest.

While THE BICYCLING WORLD was last week able to foretell that money had been made, the fact that the big corporation is able to show a net profit of \$605,579 19 will prove a surprise to many, but if the report conveys any hint of real value to the trade as a whole it is contained in the item "Merchandise on hand, \$5,815,008 07."

The statement brings up the business only to the first day of August, before the purchasing season for 1901 had opened, and that the American Bicycle Company begins the new year with nearly \$6,000,000 of material on hand conveys its own moral. It has long been plain that there was a considerable overstock somewhere, but just where it was held was the question. The item in the American Bicycle Company's report throws much light on this phase of the situation.

Six millions of dollars represented in finished and unfinished material is equal to from 200,000 to 250,000 bicycles, and with the demand of the future difficult to gauge knowledge of the fact and the reckoning it suggests should not be lost to the trade. It makes for caution and more of it in the matter of outputs.

Overdone, but not Done.

From an optimism born of an unquestioning faith in the permanency of the bicycle business and its maintenance on a high level, many people in the trade have passed to just the opposite extreme.

They view the future through dark glasses—the bottom has dropped out of the business, and henceforth there will be few sales.

Not only have people ceased to buy, but they have also stopped riding. The novelty has worn off and the machines are left to rot in the cellar or are given away to any one that wants them. In other words, bicycles have had their day, just as prophets in the early days said they would have.

This revulsion of feeling is not altogether surprising in view of the suddenness of the slump. But it is an extreme view, and the facts, instead of supporting it, are just the other way.

Cycling has been overdone, that is the truth, and it is now paying the penalty for it. But it is very far from being done.

In fact, it is entering on a new phase of its existence. The business is about to become a stable one. Instead of passing through alternate periods of boom and depression, there will be a steady demand, ascertainable within reasonable limits.

In short, the trade, no longer deluded by visions of enormous and readily absorbable outputs, will manufacture and buy only what they can reasonably expect to dispose of.

Such a policy, resulting in moderate products and little or no left over stock, will, in many cases, pay better than the one that has ruled in the past.

Demand is Growing.

So absolutely do steel spokes and wood rims rule the cycling world, being considered to be the only proper materials from which to make these articles, that it is not easy to imagine any great change taking place.

Nevertheless, the coming of motor vehicles presages just such a change. Especially is this true where the heavier vehicles are concerned, matters there being frequently reversed, curious as this may seem.

Even where the smaller and lighter motorcycles are in question, it is improbable that the present standard will be retained except in the case of bicycles. Their present methods of construction, in the wheels at least, are very likely to be adhered to.

But already tricycles and quadricycles are fitted with steel rims as the standard equipment, and it is an open question whether they will ever be replaced by wood ones. The gain with the latter is scarcely sufficient to compensate for their greater liability to go wrong.

The facilities for manufacturing steel rims in this country are exceedingly limited. One or two firms have been sagacious enough to set up rim rolling machinery, and they are likely to secure the cream of the trade.

But the probable growth of the demand promises to more than keep pace with the supply; and in such case importations will be the only recourse, carrying in their train increased prices.

There is a hint here that should not be overlooked.

Inconsistencies of The Age.

It is a common saying that "they do queer things in Chicago," but we really expected better of our respected contemporary, "The Cycle Age."

For some reason or other "The Age," while speaking up for motor tricycles, has shown its teeth whenever the motor bicycle is mentioned. On one page of its last issue it says: "Let us have talk; let much talk teach us that we have not yet reached finality in bicycle production. The trade needs the reviving spirit of interest. It's time for somebody to start some talk." On the same page, and while thus proving its own inconsistency, it charges inconsistency and catechises THE BICYCLING WORLD for starting the talk about motorcycles, and thus creating interest in motor bicycles. In another portion of the same issue it devotes nearly two pages to a detailed discussion of the evil of talking of the motor bicycle. It maintains that such talk serves only to create false hopes in the mind of the dealer, who, "The Age" says, "will buy them fast enough and sell them fast enough when they (the motor bicycles) are ready." But because the perfect motor bicycle or a perfected type of it, is not yet, "The Age" urges that pens and tongues be stilled. It would have the trade wait until this happy but far removed creation is at hand, and with it a supply that will be equal to the expected demand. It must occur to "The Age" that, had the pioneers waited for

perfection in the early bicycles, the cycle trade would never have existed. Of themselves, manufacturers' tests are of limited scope and influence; it is only when results and reports of results with many bicycles ridden by many men of many minds in many places are obtained that the "fuller mechanical development" of which "The Cycle Age" prates is possible. It is use, not machine shop tests, that brings development and perfection.

While we are free to confess that we have come to believe that the motor bicycle is the type of automobile that will ultimately enjoy the most extended use and sale, appreciating its undeveloped state, THE BICYCLING WORLD has not urged it to the exclusion of the other types; it has spoken of motorcycles collectively.

Without intentional egotism we may say that until THE BICYCLING WORLD took up the subject the trade's interest in motorcycles was lackadaisical indeed. We brought telling testimony from many representative and widely separated dealers to demonstrate that the retail trade could be interested in and was ready for the new type. We brought the evidence of not a few practical motocyclists to prove their enjoyment of and satisfaction with the new machine. It did much to awaken the trade and convince apathetic manufacturers that the game was worth the candle. The interest since has been keen and increasing, and has been kept alive; and if this is not within the province of a trade journal we do not know what is.

In attempting to make its case "The Cycle Age" is distinctly unfair. It evades our direct answer to its original criticism, and to serve its end selects certain of our utterances that bear but indirectly on the point at issue. If false hopes have been raised it is the fault of the individual. For our part we have time and again stated our belief that the motorcycle is not largely of this year nor of the next. But it is "just ahead," and in small but increasing proportions the demand and sale will gradually attain force and scope. No harm and some good is done in keeping the trade's attention riveted on the fact, and it is just as well that the development of the motor bicycle should keep pace with the motor tricycle for which "The Cycle Age" itself has said a good word. The development, the demand and the supply will be the slower if tongues are held and pens restricted. If "The Cycle Age" is not bereft of logic it must acknowledge the force of these facts.

"The Age's" contentions are not without

some force, but we expect common fairness at its hands. We stated specifically that one of the chief reasons for our attitude and our effort to awaken and interest the trade was the fact that while the cycle trade was "on the fence" coming over it were numbers of new people who were encroaching on a field that was rightly and logically the cycle trade's own. "The Cycle Age" knows this to be true. Without taking into account the many repair men and small assemblers who are "putting up a motorcycle or two," and without delving very deeply, it is possible to call up and name at least seven new concerns of some pretensions that have taken up motorcycles, i. e., motor bicycles, motor tricycles or motor quadricycles, and are making their manufacture a department of the automobile industry. While not unwelcome, the new people will appeal chiefly to those who ride or have ridden bicycles; whatever progress they make will be at the expense of the established cycle trade, which cannot afford to view such a state of affairs disinterestedly; nor is it proper that a journal devoted to its interests should permit the trade to so do.

If "The Cycle Age" means to play fair, let it state this phase of the situation to its readers, and they will have a clearer and more correct view of THE BICYCLING WORLD'S position and opinions; it will also remove the odium of our being bracketed with that notorious "trimmer," "The Cycling Gazette," which writes for the almighty dollar every time and in every case. "The Gazette" may "trim" well in the matter of motorcycles, but when in its automobile annex it serves up the same urgings to the automobile trade that it serves to the cycle trade there is small merit in its utterances. We have no wish to be classed with such a publication.

Not Like the Old Way.

Taught by bitter experience that they were not safe without a full complement of tools, the early bicycle riders loaded themselves down with wrenches, oilcans, spanners, bits of wire and all the other paraphernalia that were found to be so useful.

A toolbag was an absolute necessity, and wallets, "multum in parvo" bags and other receptacles designed to carry everything that might by any possibility be desired followed in their wake. Finally matters reached such a stage that endurance was no longer possible, and human nature rebelled. Then came the sans-everything era, when riders either carried the essentials—usually deemed

to be a wrench and oilcan—in their pockets, in the happy delusion that they were thereby saving weight, or depended on their more considerate fellows for a loan of these articles.

If the riders of the man-driven bicycle ever thought themselves burdened in the matter of emergency tools which had to be carried they will surely open their eyes when they become motor enthusiasts. It will be possible, of course, for them to fall into the old improvident way of relying on others, but the penalty to be paid when such "angels" do not materialize is so fearful that the practice will soon be checked. Therefore, the sooner they learn the mechanism of their machines, and place themselves in a position to remedy the hundred and one incidents that are likely to occur, the better it will be.

To-day the bicycle is a better, sounder, cheaper contrivance than ever before, rightly says a contemporary. In lightness, ease of running, strength, speed, resiliency and comfort of riding, the machine is as near perfection as it is likely to be. None of the recent additions or modifications have been of material consequence. This cheapening and improvement have popularized the machine with thousands who a dozen years ago could not afford to ride.

With the half-inch depth of wisdom that is its wont "The Cycling Gazette" talks of "menances to the trade." But it overlooks about the worst that ever existed—the cycling journal that invited every crook and shyster in the business to join the honest merchants in "puffing" themselves and their goods in their own language in its columns, and which tried to get advertising by pointing out that "it never changes a word, like the other papers do." None knows the paper and the policy more intimately than "The Gazette."

One of the best tributes to THE BICYCLING WORLD is the attention it receives from its contemporaries. The care with which they follow and remark its utterances is evidence of its power and readability.

Some advertisers appear to judge the value of a paper by the length and fulsomeness of the "puff" given them. There is at least one journal in the cycle trade that preys on advertisers of the sort.

MAINLY ABOUT MOTOCYCLES

London Letter Which Imparts Much That is Interesting and Instructive.

London, Sept. 22.—It is rather curious to note that motor tricycles and even quads are more popular in the country districts immediately around London and the large towns than in the metropolis itself. Within a distance of, say, forty miles the motor tricycle is commonly met, and the extraordinary thing is that the machines are generally being ridden by people who do not give the onlooker the idea that they are too well to do, though some of them manage to pay large prices for some of their cycles. But I discovered that a great number of the motors are only $1\frac{1}{4}$ h. p., and that the demand for not less than $2\frac{1}{4}$ h. p. tricycles has thrown a very great many of the lower powered machines upon the market at very low prices. Some, indeed, have been sold at ridiculous figures to clear, and especially has this been the case with those cycles which were provided with tube ignition. The other day I was passing through a country town about thirty miles from London and saw two such machines, the property of a man who combines the business of a cycle agent with those of a tailor and undertaker. He told me that he had bought the machines practically new for \$100 each, and that he himself had altered them to electric ignition and could easily get \$200 apiece for them. I think that there are many such motors about at the present time, and in districts where the hills are not too steep they are quite as good as those of higher power. In fact, when geared lower than the normal they will tackle most hills, and in addition to this are quite fast enough for the average rider.

ONE IMPROVEMENT NEEDED.

But the fact that a number of these cycles—more than many people suppose—have been placed upon the market at the ridiculous price named does not entirely account for the presence of motor tricycles in the country and their comparative absence from London. The real reason is the trouble of riding these machines in thick traffic, owing to the labor and bother of restarting them after the checks in the traffic which are constantly occurring. It really means that there must be some system by which the motor can be allowed to run independently of the actual machine, so that the rider can throw it in or out of gear as desired. There are certain difficulties in the way of doing this, for up to the present most of the friction clutches do not seem to have been great successes on large cars; hence makers seem rather frightened to try them on tricycles. But as the load is less, these devices should have a much better chance when applied to the lighter vehicle. Naturally the adoption of some such system would mean that each motor must be provided with a

simple governor to prevent the galloping which would otherwise ensue, for it is difficult to slow a motor down nicely by the throttle or ignition, and to be certain of quickening its action sufficiently to prevent it stopping when thrown into gear again. The difficulty does not, however, present any insurmountable features.

FOR EASE IN STARTING.

There is rapidly appearing a desire partly to dispense with the compression tap usually fitted to De Dion motors, and to reduce the compression, for starting purposes, by means of lifting the exhaust valve. This, no doubt, does add to the ease with which a tricycle or quad can be put in motion; but at the same time a compression tap should always be fitted as well, in case it is found that the rings are inclined to stick, in which case a few drops of petrol placed in the cylinder has the desired effect of freeing them. One of the neatest methods I have seen for the lifting of the exhaust valve is that which J. Dring, of Bowden brake fame, has had applied to his $2\frac{3}{4}$ h. p. tricycle. The valve is raised by means of a cam actuated by a Bowden wire. The long rod (which is often awkwardly jointed) to the compression tap proper is thus dispensed with, and the driving and starting of the machine are simplified accordingly. This is a great point when selling a motor tricycle to the public, who do not like the looks of a multiplicity of handles and levers, which, as a rule, strike terror to the mind of the novice. Mr. Dring has also adapted the Bowden wire for the application of the band brake, and has obtained a much more powerful grip without the complications of the tumbler arms and kindred bell-crank levers commonly fitted. There are many places on motor tricycles, and even large cars, where the Bowden wire can be successfully applied.

PROPER POSITION OF CLUTCH.

A correspondence of some interest is now going on over here regarding the correct position of the clutch upon motorcycles. There can be little doubt that it should be placed upon the main axle, or rather upon the balance gear box, for when thus situated the chain is at rest except during the operation of starting the machine. A constantly running chain has, according to P. L. Renouf, who has given much attention to the matter, only one mission, and that is to carry as much dirt as possible into the gear box. I certainly agree with Mr. Renouf, and I can see no reason for placing the clutch upon the crank axle, in the manner now so common. The alteration is a simple matter when designing a new machine, and should receive the attention of manufacturers just taking up the actual making of motor tricycles and quads.

NOVELTY PROMISED.

I hear that a novelty in the line of a motor tricycle will be on view at the shows. So far as I can gather, the machine has practically all the parts of the ordinary motor tricycle as at present made, but the frame follows more upon the lines of the old loop

patterns used on the early tricycles of twenty years ago. The saddle is replaced by a seat and the pedals by a footboard. The motor has apparently to be started by hand, and therefore must have a connecting clutch or similar device. Handle-bar steering is employed, and the question arises as to whether the entire machine is a motor cycle or a motor car. Possibly, as there are no pedals, it will come under the latter class.

Changes Will be Few.

Across the water, where the yearly changes in patterns are even of less moment than has grown to be the case in this country, items regarding the new models are filtering through the English press. The approach of the shows makes it more difficult to preserve secrecy, while it removes much of the necessity for it.

Writing on this subject, the Coventry correspondent of a contemporary says:

"Makers are slowly completing their improvements for 1901, among which we can hopefully expect some innovation in the way of free-wheel devices, and both front and back wheel band brakes. No one, however, appears to contemplate any radical change of design for the cycle, the alteration being confined to the smaller parts, such as chain wheels, clutches, brakes, etc., although more than one well-known firm has signified its intention of adopting an eccentric bottom bracket in lieu of the eccentric chain adjustment upon the back hub adopted by a few firms some two years back."

Ex-Champion Windle a Convert.

C. A. Persons, of the Persons Saddle Manufacturing Company, Worcester, Mass., has developed into a motorcycle enthusiast of the warmest type. He owns a $\frac{3}{4}$ h. p. Orient tricycle, one of the most powerful in use in this country, and the air is fairly impregnated with motorcycle enthusiasm when he gets to talking of the machine and the joys of motorcycling.

"I rode bicycles for a good many years," he said, "and I thought I enjoyed it, but until I got this machine and learned how to handle and humor and care for it, I never knew what cycling enjoyment really was."

Quite recently Persons infected ex-Champion Willie Windle with the motorcycle microbe. Windle learned readily, and Persons says he got the fever so bad that on the Sunday following his first lesson Windle was at the Persons residence shortly after daylight "looking for more," and this despite a drizzling rain.

Out of Harm's Way.

Severe but merited was the punishment visited on Edward Conners, who was sentenced last week to ten years' imprisonment for passing a forged check on a Buffalo firm, thereby securing a \$50 bicycle.

Wants to Buy Sundries.

D. S. Brown, Watertown, N. Y., is in the market for a complete line of cycle sundries for the jobbing trade. He requests quotations.

Kelly Will Extend Things.

As announced in last week's BICYCLING WORLD, Charles F. U. Kelly, for several years manager of the Detroit branch of the B. F. Goodrich Company, has resigned that position to accept the more important post of general sales manager for the Pennsylvania Rubber Company, of Erie, Penn. The change is a big step forward, but Mr. Kelly is just the kind of man to whom such steps come naturally. Forcefulness is written all over him, and instead, as is usually the case, of the man growing up to the position, in Mr. Kelly's case the position heretofore has had to grow up to the man.

Although the Pennsylvania Rubber Company is a very strongly backed concern financially, it has never made much of a stir on its bicycle tires, contenting itself with marketing a moderate number at medium prices, which, however, were considered among the best of their class. Under Mr. Kelly's direction, however, the policy of the company will be radically changed. He has already secured the services of the assistant superintendent of the B. F. Goodrich company, a man who is considered one of the best "rubber men" in the country, and will place on the market a complete line of highest grade automobile and carriage tires, as well as making a vigorous effort for bicycle business. Branches will probably be established in New York and Chicago at an early date, and it is safe to say the products of the Pennsylvania Rubber Company will ere long be very well known to the automobile and bicycle trades.

Will Continue with Carbide.

Although, as was stated exclusively in THE BICYCLING WORLD last week, the 20th Century Manufacturing Company has taken over the Electro lamp and will market it in connection with the 20th Century, the Electro Lamp Company desires it known that, while it will no longer handle lamps, the company will remain in existence to market carbide in small packages for use in bicycle and other portable lamps; it will sell under license of the Electro Gas Company, the parent company of the carbide interests.

In announcing this fact the Electro people style their deal with the 20th Century company "an arrangement to handle their lamp," but it is known that the latter purchased outright everything connected with the Electro—name, stock, dies, tools, etc. The lamp is now wholly the property of the 20th Century company, and not merely a temporary possession, as might be inferred.

Not the Same Company.

The Frank E. Bundy Lamp and Sundry Company, Elmira, N. Y., is anxious that it be not confounded with the Frank E. Bundy Lamp Company, whose dissolution was formally announced last week. Each was a separate corporation, and the winding up of the one in no way affects the Lamp and Sundry Company, which will continue as heretofore, and, as Vice-President Bowman says, the Bundy lamp will continue to shine as brightly as ever.

McLean's Debts Aggregate \$12,924.

Following its assignment, the Durant McLean company, New York, was last week petitioned into bankruptcy. Action was taken at the instance of these creditors: Henry Benoit, \$1,097, on an assigned claim from the Huntington Manufacturing Company; M. Hartley Company, \$156, and George N. Pierce, \$290. It was alleged that the company had committed an act of bankruptcy by making an assignment on September 28.

McLean's schedule has also been filed; it shows liabilities of \$12,924; nominal assets, \$1,181; actual assets, \$950.

Seeks American Novelties.

Albert Brown, of the well known importing house of Brown Brothers, Limited, London, is now in this country on his annual visit. While here he will make his headquarters with Oliver Brothers, No. 127 Duane street, New York, and will be pleased to consider any meritorious cycle or motor novelties, with a view of introducing them on the British market.

Working Twenty-two Hours Already.

The demand for Morrow coaster-brakes has already forced the Eclipse Manufacturing Company to run its factory, at Elmira, N. Y., twenty-two hours a day. Twenty-two hours' work at this plant means very much more, too, than it did a year ago. Then the output was three hundred coaster-brakes a day; now it is over one thousand.



Just As We Did Last Season

We will make a "clean sweep" in the tire business this year.

Wide Awake Jobbers Will Handle the GOODYEAR TIRES

Because We Are the Leaders, and That Means
a SURE PROFIT for Them.

THE GOODYEAR TIRE & RUBBER CO.,
AKRON, OHIO.

JEFFERY RETIRES

Another Trade Pioneer Steps Out—How the Famous Names are Passing.

Under the new order of things in the American Bicycle Company most of the names that made the bicycle and the bicycle trade famous will pass from view forever, or at least will loosen one of the links that has kept them before the people.

Thus, the new rule substituting the title Columbia Sales Department for the Pope Sales Department, Rambler Sales Department for Gormully & Jeffery Sales Department, Cleveland Sales Department for Lozier Sales Department, wipes out the names Pope, Gormully, Jeffery and Lozier, each of which has stood out and been prominently identified with the cycle trade since its inception, or soon thereafter at any rate.

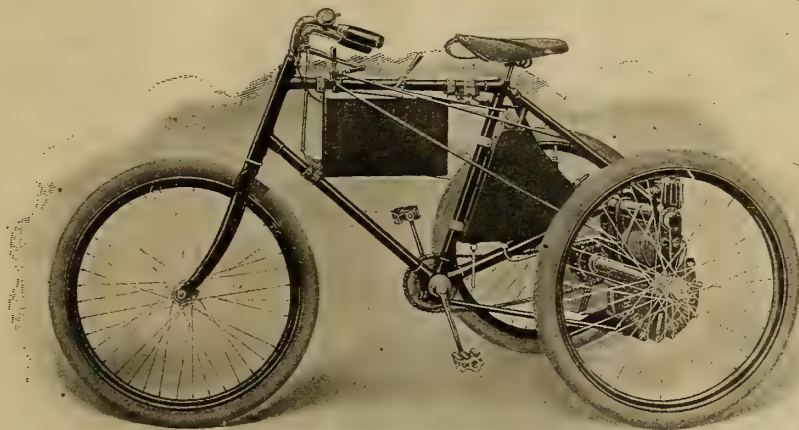
may also visit Bermuda, Cuba and the other islands thereabouts. After his six months' vacation is over he does not know what he will do. He talks so interestedly of automobiles, however, that it does not seem unlikely that that industry will next claim his attention.

Mr. Jeffery will continue to make his home in Chicago, and his son, Charles T. Jeffery, will remain with the American Bicycle Company, as in the past.

Mr. Jeffery was born in Devonshire, England, fifty-five years ago. He went to Chicago in 1868 and entered into the business of manufacturing railway appliances and general machinery. He continued in business alone until 1881, when his old boyhood friend, R. Philip Gormully, came to this country from England, and they entered into a business partnership that continued uninterrupted until the death of Mr. Gormully, in August last.

He was a prolific inventor, and seemed to delight in working out an idea on lines wholly different from any one else; it can never be said that he copied any one, and while some of his devices were frequently dubbed "freaks," not a few of them, modified and improved, are in general use to-day by those who once scoffed at them. He was the first man in this country to apply ball bearings to a bicycle, the first to use hollow forks; spring frames, the detachable sprocket, the dished sprocket, the upturned handle bar, the detachable tire, and several other inventions now universally accepted were created by Mr. Jeffery.

Mr. Jeffery is a great listener, but a poor talker, and so retiring that it is related of him that he would never attend a cycling banquet or meeting for fear that he might be called on for a speech. He lived between his home and his factory, an occasional visit to England excepted.



The E. R. Thomas Motor Company, Buffalo, N. Y., has adopted "Autori" as the title for their motor tricycle which is shown by the accompanying illustration. The origi-

nal machine of this type was, they claim, the first motor tricycle made in America; it was exhibited and obtained a medal at the Toronto Industrial Exposition of 1899. It is fitted with a Thomas 3 h. p. motor, weighs 200

pounds and will retail for \$350. The machine is convertible into either a quadricycle or a parcel carrier, the Thomas people supplying a box which may be substituted for the front seat.

Death removed Mr. Gormully but a few weeks since, and now his partner of many years has betaken himself from the industry in which he played such a part—Thomas B. Jeffery has announced his formal retirement from the trade. His position as manager of the Rambler Sales Department has been filled by the appointment of Charles Van Horne, a capable, conscientious and deserving man who for nearly fourteen years has been identified with the house of Gormully & Jeffery.

"I have worked ever since I was fifteen years old," Mr. Jeffery said in speaking of his retirement, "and now that I have an opportunity I am going to take a vacation, although I hardly know how to go about it. I have arranged for a six months' vacation at least, and will devote most of the time to travel. I expect to go to California first, as I have never been out through that section of the country. I would like to see what the American mountain region is like.

Mr. Jeffery, who is in New York this week,

Mr. Jeffery carries his age better than the average man in active life, and would pass for forty-five oftener than fifty-five years old.

"I attribute my good health and youthful appearance as well," he said, "to regular habits and hours, together with plenty of exercise on a bicycle." Aside from his interest as a manufacturer Mr. Jeffery has really been an active rider; he frequently used his wheel in riding to and from business.

In the passing of Mr. Jeffery there passes one of the interesting characters of the trade, but one so modest and retiring in disposition that he was too little known personally. He was the mechanical head of his house in the fullest sense. If a man can love a factory Mr. Jeffery loved his. He fairly haunted it. Until late years he oversaw everything; no matter concerning the factory or its product was too small for his attention. It used to be a common saying that if he remained long away from the plant he would pine away.

Of recent years he has not been so self-contained, but the thick-set, little man with the nervous little cough—a peculiarity of his—never did quite "thaw out," so far as any one knows.

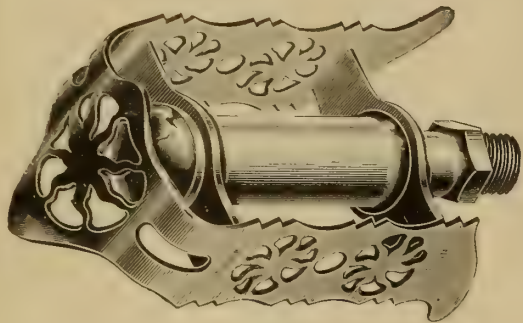
When the American Bicycle Company took over his business he made it plain to those around him that he meant to retire. He told them that he intended that the young men should have a chance, and while nominally the head of the house he practically allowed "his young men" to conduct the business.

He has earned his rest and good fortune, and few there are who will say that he has not.

Novelties Attract Him.

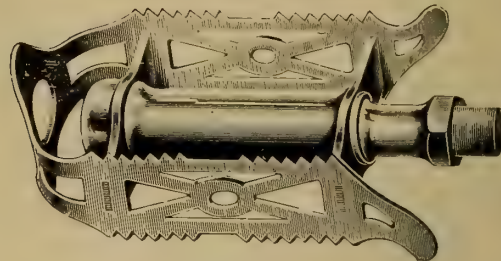
Albert Brown, of the big English firm of Brown Bros. & Co., has sailed for this country on business and pleasure bent. He will visit New York and other cities, keeping a sharp lookout for new things in parts and sundries.

PEDALS



SUNBURST

Quality
Guaranteed



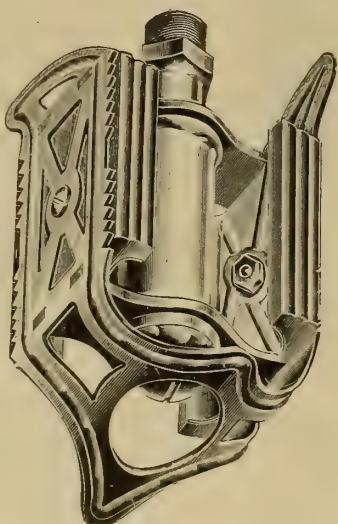
GENESEE.

SEASON
1900-1901

JOHN R. KEIM
BUFFALO,
N. Y.

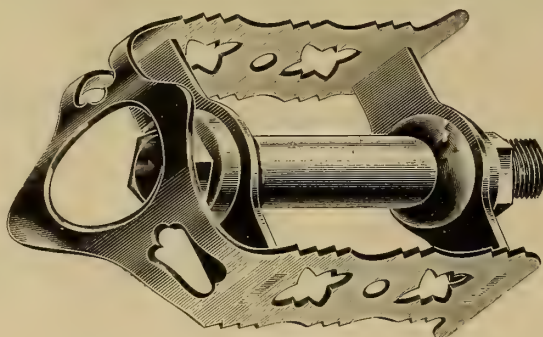
Finish
Unexcelled.

Best
Quality
Balls.

KENSINGTON LADIES.
Prices

Fine
Bearing

Surfaces



KEIM.

SUNBURST COMBINATION.
Style

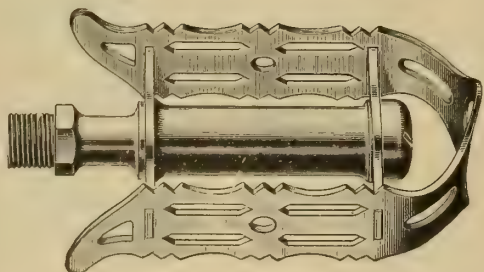
Assortment

Strength

Workmanship

BEST OBTAINABLE
Results Guarantee

Satisfaction

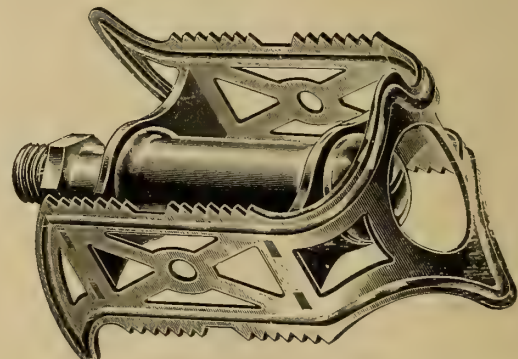


SPAULDING

Brandenberg Bros.
& Wallace,

SALES AGENTS,

119 Lake Street, CHICAGO,
56 Reade St., NEW YORK.



KENSINGTON

HINDERANCES TO HIRING

Large Expense Entailed When a Motorcycle is Taken Out.

Veteran dealers, who have given the subject of hiring long and careful consideration, are wont, as a rule, to give a more or less decided negative to the question whether the practice can be made to pay.

There were exceptions to this rule, of course. In sections where there was a considerable hiring population the chief essential to success was good management combined with sufficient capital to make the providing of the necessary machines an easy matter. If the machines selected were good ones it was largely a question of seeing that they were hired to the right people, that the hire was paid, and that proper attention was given to the care of the machines set aside for hire.

But where the amount of hiring done was limited, or where the machines were of indifferent quality and poorly looked after; where, in short, the hiring was merely the tail of the kite, in such case the result was nearly always the same—disastrous. It was only a question of time when the practice was given up in disgust.

Whether the chances of success will be any greater when motorcycles are substituted for bicycles remains to be seen. But it is plain that the obstacles are much greater, while the advantages do not appear to have increased in proportion. Both the initial outlay and the cost of maintenance are very much in excess of those for bicycles, to say nothing of the increased liability to get out of order. The charge limit, however, is not sufficiently increased to compensate for the greater expense and risk, and nothing but the most careful management will come anywhere near equalizing matters.

In a talk recently with one of the principal dealers in motorcycles THE BICYCLING WORLD man was given a graphic picture of some of the obstacles encountered in doing a profitable hiring business.

"Although we charge \$1.75 for the first hour, there is actually no money in it unless a machine is taken for more than one hour," said the dealer. "In fact, the \$1.75 charge will no more than cover expenses, and we never encourage such short time hiring. If we can get two hours' hiring we come out all right; but even then we do not make a great deal out of it. It is only when a machine is taken for a half or whole day that we feel at all satisfied.

"You see, there is so much to be taken into consideration when a motorcycle is in question. When it comes in it has to be cleaned, and that alone is a job that will keep a man busy for an hour or more. Freshly sprinkled streets are almost certain to be encountered, no matter how short a distance the machine is ridden, and the mud is

thrown all over the vehicle. It is no easy job to remove it, I tell you," and he pointed to a man who was down on his hands and knees cleaning the under part of a tricycle that had evidently seen recent hard usage.

"But that is really the smallest part of it," he continued. "There are so many things that can happen to a motorcycle, and we have to go over it carefully to see which of them have happened. It takes a skilled workman for this, too. He goes over the machine here in the store, and then he takes it out and runs it to see if it does run right; it is not enough that it should do so, but it must under actual test. Otherwise we could never be sure that it would not leave the rider in the lurch miles from anywhere.

"The cost of the gasoline, oil, etc., forms another item that, while of no very great moment, yet aggregates no inconsiderable proportion of the hiring fees. When to this



NEW YORK BRANCH: 214-216 WEST 47th ST
BOSTON BRANCH: 80 BATTERY MARCH ST.,
Near Fort Hill Square.

is added the wear and tear on the running parts of the machine, the tires, etc., the allowance for depreciation, interest on the investment, etc., it will readily be seen that the initial charge of \$1.75 is about swallowed up—sometimes a great deal more."

From which it will be seen that the hiring and care of motorcycles, even at such figures as rule at present, is by no means the sinecure that some people suppose.

To Take Expander Bars.

In these days of 'cycle remodelling many riders desire to have expanders put in to take the place of the regular handle-bar binding clamps. The ordinary head can be remodelled to hold the handle-bar with an expander by having the fork stem cut off directly above the lock-nut threads. The handle-bar stem must then be split in three places for a distance of about two inches up from the bottom and a hole drilled through the top of the bar for the passage of the expander rod.

ADDITIONAL ADVANTAGES

How the Coaster-Brake Conduces to Safety—One Point Lost.

Extremely low crank hangers are no longer as fashionable as they were a year or two ago, consequently the number of broken pedals, bent cranks, etc., is much smaller.

This being so, the coaster-brake loses an opportunity to score a point. It would have been just the thing to go with such drops as three and one-half and three and three-quarter inches, and would have saved many a mishap. With the fixed gear the rider knew that the crank must complete its revolution, no matter what unpleasant consequences might result. In making a turn or in riding on rutty roads the pedals would frequently strike, and while the rider might know beforehand just what would happen he had absolutely no way to prevent it.

With the coaster-brake, however, it would often be possible to avoid such an occurrence. The slightest backward pressure would be sufficient to check the progress of the cranks, and they could be held in a horizontal position or near enough to prevent the pedals from striking.

In other ways the coaster-brake will often prove its usefulness. Many bad accidents have happened through a too closely built crank catching in a loose chain and playing hob generally. In such case, if the chain does not break, the frame stands a good chance of being doubled up, especially if the machine is going fast. With a coaster-brake, however, the matter would right itself automatically; the coaster would be thrown in operation the instant the crank caught in the chain, and the crank could not complete its revolution.

Should a rider's foot get caught between the crank and the chain stays—as has not infrequently happened—the result would be the same. Or, should a shoelace wind itself around the crank end or between the pedal and the crank, the rider would be equally lucky—provided his machine was fitted with a coaster-brake. With a fixed gear, however, trouble would almost certainly result.

Repairs to Rims.

When a wood rim is split for six inches or more, as sometimes happens, few riders or repair shop men attempt even a temporary repair. Yet one may easily be made if a piece of tin can be gotten, as is usually the case. Cut the tin into a strip about an inch wide and long enough to wrap about the rim the whole length of the split after the tire is removed. Wrap it tightly, and secure the ends with stout tacks, then take a hammer and pound it down into the cavity of the rim, which will draw the parts closely together. After replacing the tire and inflating it, tire tape should be wrapped about the tire and rim, as the cement may not hold to the tire very well.

Reward of Progressiveness.

It is noteworthy that the first of the English company reports to be submitted to the public that of the Raglan Cycle and Anti-Friction Ball Company—is, all things considered, a satisfactory one. A profit of nearly \$55,000 is shown, and this permits a dividend of 3 per cent to be paid, after carrying some \$15,000 to the already large reserve fund. To the unprejudiced mind the fact that the Raglan company was the only English firm of established reputation to put out a \$40 bicycle during the last season would seem to have something to do with this showing.

Wants Railway Cycles.

An order has been placed in this country for a number of railway bicycles to be used by the linemen of the United States Signal Corps in repairing the telegraphic line between Tien-Tsin and Peking. It is supposed that General Chaffee regards it necessary to keep this telegraphic line open in order that the United States Government may communicate promptly with the Legation Guard at Peking at all times. The railroad bicycles have been ordered to be sent on the next transport.

What's the Time.

A booklet with this title, just published by the Chicago, Milwaukee and St. Paul Railway, should not only be in the hands of every traveller, but should have a place on the desk of every banker, merchant or other business man.

The four "Time Standards" which govern our entire time system, and which are more or less familiar to most of the travelling public, but by many others little understood, are so fully explained and illustrated by a series of charts, diagrams and tables that any one who chooses can become conversant with the subject in question. There are also some twenty-four tables by which almost at a glance, the time at any place being given, the hour and day can be ascertained in all the principal cities of the world.

A copy of this pamphlet may be had on application to Geo. H. Heafford, General Passenger Agent, Chicago, inclosing two-cent stamp to pay postage. ***

False Alarm Over 1901 Prices.

Strange as it may seem, California and the Pacific Coast not infrequently see and the riders are using the new year's models before they have been displayed in the East, where the factories are located. In this way news of new prices and other particulars frequently come East via the Pacific Slope.

An instance of the sort, which created something of a false alarm occurred this week. Los Angeles papers reached New York containing the advertisement of the Sterling agent at that point stating that 1901 Sterlings at \$30, racers at \$40, were "now on sale."

It was at once assumed that these figures gave a cue to the American Bicycle Company's prices for next year. Colonel George Pope, vice-president of the American Bicycle Company, states, however, that the figures are wholly unauthorized; that no prices have been set, and that, as no 1901 Sterlings have been even manufactured, the wheels in question must be old stock.

G. A. Boyer, of John R. Keim and E. P. Hubbell, of the National Cement and Rubber Company, were among Chicago trade visitors this week.

Favors a Heavy Lubricant.

Of considerable importance is the selection of the best lubricant for coaster-brake devices. The heavy oils or other lubricants appear to have the best of the argument, and are coming into more general use all the time.

A rider who has done considerable experimenting along this line sums up his experience as follows:

"I find that the Morrow grips just as well with a thick lubricant. Supposing the whole device is chock-full—the forward movement of the sprocket wheel when you are beginning to pedal will move the grease forward, so that even if the rollers are stuck in it they are carried forward, too. The thickness of the lubricant does not affect the grip, as the pressure per square inch is high enough to squeeze the grease out and give a metal to metal contact."

Eagle Flits Toward the Pacific.

Harry Hammond, of the Eagle Bicycle Company, left Chicago on Sunday night for a trip to the Pacific Coast in the interests of the Torrington company.

MORROW

COASTER AND BRAKE.

Over 100,000 Sold
Last Year.

Everyone Giving Satisfactory
Service.

Make Your Cycle Saleable and
Desirable by Fitting it with
the MORROW.

ECLIPSE MFG. CO., ELMIRA, N. Y.

NEW YORK BRANCH:
105-107 Chambers Street.

STANDARD

SPOKE & NIPPLE CO.,

Torrington, Conn.

Spokes and Nipples

for Bicycles, Motorcycles and Automobiles.

Chicago Office,

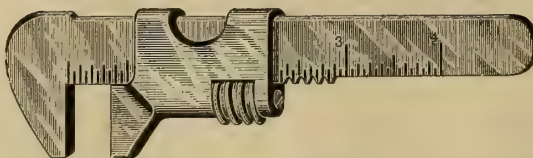
40 Dearborn Street.

BICYCLE SUNDRIES

MANUFACTURED BY

The Smith & Egge Mfg. Co.

BRIDGEPORT, CONN.



BICYCLE WRENCH No. 2100.

Made of best steel, thoroughly hardened, finely finished and nicked.
Very strong and durable.

WRENCHES
SPROCKET LOCKS
TOE CLIPS
COASTERS
LAMP BRACKETS
SCREW DRIVERS
SCREW DRIVER
and NIPPLE GRIP.

Catalogue on
Application.

COASTER-BRAKE TESTS

First Pretentious Public Contest of the Sort—Little Learned From Results.

One of the most noteworthy features of the much-heralded Catford coaster-brake contest, which was held near London on September 22, was the closeness of the coasting competition.

Only fifty feet separated the twelfth man from the winner—a result which indicates a remarkable evenness of running on the part of the dozen or more devices entered in the contest. In the brake tests, on the other hand, there was a very wide disparity in the performances credited to the different machines. Curiously enough, it was the front-wheel brakes that scored most of the honors here, they being in some cases almost as effective as the combination of front and rear wheel brake.

The contests were witnessed by more than three thousand people, and over one hundred and twenty entries were received, although the field was limited to fifty. Of the latter forty-nine took part in the coasting competition and forty-one in the braking competition.

Restrictions were placed on weights, the machines being required to scale not more than forty nor less than thirty pounds, while an elaborate system of weight handicaps was devised to be applied to the riders. For example, 163 pounds was taken as the standard weight, and a rider turning the scales at this figure was placed on scratch; for every pound over this weight the rider was penalized one-half yard. No handicap appears to have been imposed on the competitors in the braking contest.

The hill selected measured 247 yards from the start to the lowest point; then came a rise, along which the distance covered by the contestants was measured. The first

seventy-five feet of the hill had an incline of one foot in every 12.81 feet. The next 323 feet fell 1 in 11.62, followed by 123 feet of 1 in 13.54. Then came 177 feet of 1 in 20.89, and the bottom of the hill was reached by a short stretch of 43 feet of 1 in 87.

No rider was allowed to accelerate the pace by swaying the body or any other means, although riders might crouch down to avoid the wind. In order to demonstrate the clutches had not been tampered with, riders returned at once on the same machine to the starting point.

In the brake contest there were three consecutive tests, to ascertain the shortest distance in which a free-wheel bicycle can be brought to a standstill. Competitors were started from the starting line, free-wheeling at the greatest pace afforded by the gradient to the mark, fifty yards distant. The tests were as follows:

First test—At the mark apply front-wheel brake only, or, if not fitted, back-wheel brake. Bring machine to standstill and dismount.

Second test—At mark apply back-wheel brake only. Bring machine to standstill and dismount.

Third test—At mark apply all brake power. Bring machine to standstill and dismount.

It cannot be said that the contest has accomplished all that was hoped for from it, or, at least, the information at hand is not sufficient to show this. It is plain that the leading machines were pretty well matched at coasting, for a difference of less than 5 per cent between the first and the twelfth is a remarkably small one; and in the absence of a trial over the same course with fixed-gear machines no comparison can be made. Such a comparison would have been exceedingly valuable, as it would have given a line on the work each class of machine was capable of. But it does not appear to have been thought of by those in charge of the contest.

The brake competition shows nothing be-

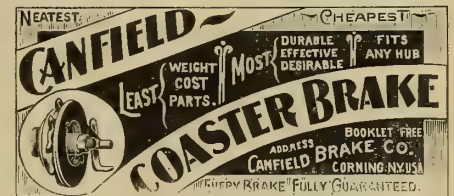
yond the fact that a front-wheel brake can be made to stop a machine more quickly than any other form. This, however, is only what might have been expected. The simplicity and direct action of these brakes give them a great advantage, while it is well known that if the rider applies sufficient power, and the brake is sufficiently strong to resist the strain, the machine must come to a stop quicker than if checked in any other way; for the front wheel is stopped right in its track and cannot skid.

But no one will contend that this method of stopping is the best for checking speed on long grades, or at any time except when instant stoppage is almost a matter of life or death. Furthermore, such use of the brake as this is almost certain to result in disaster to the fork or tire, as one broken fork and one burst tire reported is almost conclusive evidence.

The results of the braking contests are further confused by the ignoring of the respective performances of the front, rear and combined brakes, the aggregate—that is, the sum of all three—being taken alone. This makes it impossible to judge of the work of the back-peddalling hub brake, although it may be mentioned that one of the Morrows entered took second place. The chief honors were carried off by rim brakes.

FOR SALE.

Waltham Tri-Quadricycle Convertible "Autogo," good condition. Equipped with 2 1-4 h. p. De Dion Motor. IMMEDIATE DELIVERY. Can carry two persons, rate 20 miles per hour. Reason for selling, owner needs larger carriage. Cost \$600, will sell at sacrifice. FRANK A. WILMOT, P. O. Box, 856 BRIDGEPORT, CONN.



DON'T LET ANYONE FOOL YOU

into believing that the

REED & CURTIS MACHINE SCREW CO.,

WORCESTER, MASS.

Are not "in it" on the pedal question.

If you are looking for the right goods at the right prices, try them and receive an eye-opener.



Fisk Tires

THE TIRES ARE THE LUNGS OF A BICYCLE

and poor tires are just as much of a handicap to enjoyment in the race of life as weak lungs. Better a fair wheel and high grade tires than a superior wheel burdened with cheap tires. Inferior tires are lifeless and make the best wheel run like an ice-wagon.

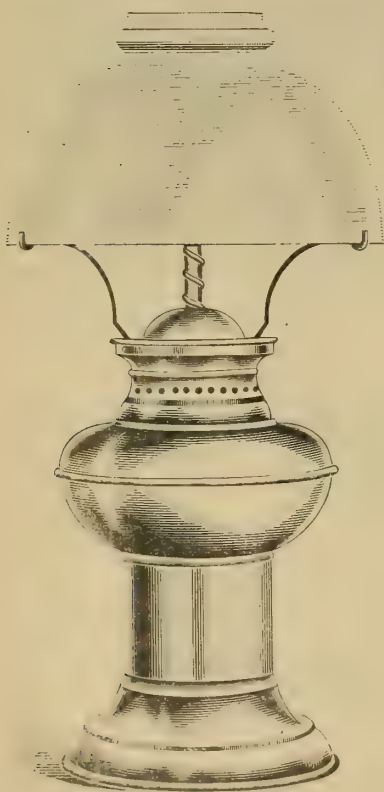
A rider or dealer should pay just as much attention to the selection of tires as to the make of wheel.

FISK TIRES lend quality to any wheel. Made of the best and the best made.

Fisk Rubber Company
Chicopee Falls, Mass.

HAWKINS 1123 B WAY N.Y.

ANOTHER GOOD SELLER



that will help pay your rent during the dull winter months.

THE "SOLAR" Acetylene Gas House Lamp...

A Light as Brilliant as Electric Light in Your Own Home.

Burns with an intense white light that makes an oil lamp pale as a tallow candle. Simple, easy to operate, cheaper and safer than kerosene. Absolutely cannot explode. Makes its own gas from Calcium Carbide.

A perfect home light. No Odor. The Greatest Lighting Invention of the Age. No Home Complete without it.

Price, \$3.50.

Our discount to dealers is so liberal that you can make a handsome profit by selling them. Send for sample and be the first dealer in your city to show them.

BADGER BRASS CO., Hudson Street, KENOSHA, WIS.

APPEARANCES DECEPTIVE

Drawbacks Little Felt by Users of Motorcycles—The Reason.

To the uninitiated the greatest drawback to the use of gasoline motors comes from their smell and noise and heat.

"How in the world can you expect any one to buy one of those things?" exclaimed a gentleman who finds nothing to object to in his team of high steppers on any of these grounds. "Why, I would not have one of the 'contraptions' as a gift! Ugly, noisy and vile smelling—how can any one get any enjoyment out of them?"

Yet the speaker would really like to get a motor vehicle, provided he could find one that would fulfil his requirements. But as he wants the impossible—a perfect vehicle, such as, for example, a carriage minus horses and plus no additional weight or complexity—he is not likely to get it soon. About the only thing that would suit him would be to have the horses taken out and the shafts detached from his carriage, while the latter was in some mysterious and unobtrusive manner endowed with the power of locomotion.

To return to practical matters, however, the existence of a prejudice against gasoline motors cannot be denied. At the same time, it is equally plain that this prejudice is confined almost entirely to non-users of the motor.

What they take the most notice of is the odor that follows in the wake of the machine, the incessant noise that accompanies it and the excessive vibration that appears to be its inseparable companion. If that is what a rider has to put up with he will say, "I beg to be excused."

That he should reach this conclusion is no more surprising than is the directly opposite view of the matter taken by the rider. The latter pays no attention to the evils alluded to, and for a very simple reason—they do not trouble him in anything like the extent that would be expected.

The odor is scarcely apparent; it arises in his rear and is borne away from him by the wind and the progress made by the machine. As a rule, he is entirely unconscious that any disagreeable odor is being given out.

The noise he soon becomes accustomed to, and it never occurs to him to object to it. On the contrary, it is a welcome sound, for as long as it continues unabated he knows that the motor is working properly and the machine is being propelled as it should be.

As to the vibration, it is unquestionably more pronounced in some machines than in others; but in all of them it appears to be greater than it really is. The rider is so well insulated that the jolts are in a great measure absorbed before they reach him.

Then, too, it should be remembered that most of the vibration is caused by the use of high-powered motors. With a motor of

moderate power there is rarely sufficient vibration to be unpleasant. It is only when the rider wants more power and more speed that he is called on to pay the penalty by submitting to increased vibration. At such times he is less likely to notice the vibration, for his interest is concentrated on the speed he is making, except on bad roads, and there he must slow up or take the risk of a mishap.

For these reasons the disadvantages of the gasoline motor fail to impress their users to anything like the degree they do others. And even if they did, it is altogether likely that the thought of their merits would more than counterbalance any dissatisfaction that might otherwise arise.

Analysis of Acetylene.

In a recent issue of the "Chem Gesell," of Stockholm, M. Lundstroem gives the result of a large number of analyses of acetylene as now made from commercial carbide. In a general way commercial carbide was found to give a gas containing 99.5 per cent of acetylene. The oxygen (.55 minimum, 1.180 maximum) and the nitrogen (.20 min., 2.910 max.) come from the air enveloping the pieces of carbide. The pressure of hydrogen (.07 min., .270 max.) is due to the metallic calcium formed by the dissociation of the carbide at a high temperature. The raw acetylene, according to M. Lundstroem, may even contain as much as 20 per cent of this gas. The siliciuretted hydrogen (.800 max.) probably comes from the silica which is always present in the lime used; as for the ammonia (.06 min., 2.800 max.), it comes from the nitride of magnesium. Finally, the sulphuretted hydrogen (1.340 max.) is due to sulphide of alumina, and the phosphoretted hydrogen (.03 min., 1.700 max.) to phosphide of lime. Carbonic oxide (1.480 max.) is also present.

Its Modest Claims.

Another tire revolutionizer has entered the field and is about to make it interesting for the standard types. The new departure is called the Lattina Cellular, and is, of course, positively non-puncturable. The special advantages of this tire are said to be that it does not inflate, no pumping being necessary, and there are no valves to leak, with no fear of puncture.

Its construction consists of a series of rubber disks alternating with air cells. Each compartment is full of natural uncompressed air, and even if the outer tread should become torn away from the compartment it would not alter the condition of those on either side of the injured compartment. It is easily adjusted by means of logs bolted through the rim. No special tools are required, and it will fit any rim.

Another advantage is that a smaller size tire can be used for heavier vehicles than those usually used.

"Motocycles and How to Manage Them." The name explains the nature of the book. Price 75 cents. For sale by The Goodman Company. * * *

SOMETHING WRONG

English Coaster-Brakes Unsatisfactory—Different Story Told Here.

There must be something radically wrong with the average British coaster-brake construction when these devices call forth such sweeping condemnation as this from "The Irish Cyclist":

"We cannot help thinking that a large proportion of the cyclists who purchased free wheels this year will discard them at the earliest opportunity. It is not because we have changed our mind as to the advantages of the free wheel that we are of this opinion. It is due to the belief that the majority of the free-wheel cycles sent out are defective. In the cheaper types the parts are so poorly made that they will not withstand wear for any time. The rollers become flattened and slip, the rings burst or get distorted, and troubles arise in other directions also."

Certainly such a state of affairs does not exist in this country. If the devices now in such extensive use were open to one-half the criticisms quoted it would be small wonder if they were somewhat in disfavor.

But it requires only the most superficial knowledge of the situation to know that such is not the case. In fact, it is doubtful if there ever was a time when the position of the coaster-brake or its outlook for the future was as good as it is at the present time. Satisfaction with the types in most extensive use is, of course, at the bottom of much of this feeling, and this could not be felt if there was any room for doubt as to the device, either in its principle or its practical workings.

It may be that the comparatively small number of coaster-brakes that got beyond the preliminary stages in this country has had something to do with this widespread satisfaction. If there had been more—if there had been a rush to place on the market scores of so-called coaster-brakes, the greater part of them crude and untried—there might very well have been an entirely different story to tell. But there was not, and of the limited number of applicants for public favor all of them had to show some good reason for their existence or retire from the field.

It will not do to claim that practical perfection was reached by all, or even by any, of the makers of these devices. They had many difficulties to contend with, and in some instances the results achieved fell considerably short of the expectation. Actual use—and particularly when it was extended—revealed defects hitherto unsuspected or regarded as only remotely probable. In such cases they were grappled with quickly and either remedied entirely or to such an extent that no actual harm resulted.

The best proof of this is—not alone the almost entire freedom from accidents which has been so much commented on—but the absence of complaints from either public or trade. It may be set down as certain that if there existed any ground for serious or even trivial complaint it would have been made. That it has not may be taken as an almost certain proof that it did not exist.

The Week's Exports.

Exports of bicycles and cycle material from the port of New York for week ending October 9, 1900:

- Antwerp—2 cases bicycles, \$85.
- Amsterdam—1 case bicycles, \$30.
- Brazil—5 cases bicycles, \$145; 1 case bicycle material, \$57.
- Bremen—6 cases bicycle material, \$320.
- British Australia—25 cases bicycles, \$1,038; 13 cases bicycle material, \$1,463.
- British West Indies—20 cases bicycles, \$467; 20 cases bicycle material, \$454.
- British Possessions in Africa—55 cases bicycles, \$1,798.
- British Guiana—14 cases bicycle and material, \$538.
- Bordeaux—1 case bicycles, \$151.
- Copenhagen—1 case bicycles, \$150.
- Cuba—3 cases bicycles, \$104; 2 cases bicycle material, \$74.
- Central America—2 cases bicycle material, \$110.
- Dutch West Indies—1 case bicycle material, \$25.
- Dutch Guiana—1 case bicycles, \$30.
- Dutch West Indies—12 cases bicycles and parts, \$473.
- Danish West Indies—1 case bicycles, \$21.
- Glasgow—3 cases bicycles, \$100.
- Harve—5 cases bicycles, \$125; 10 cases bicycle material, \$555.
- Hamburg—8 cases bicycles, \$273; 6 cases bicycle material, \$445.
- Liverpool—4 cases bicycles, \$160.
- London—39 cases bicycles, \$433; 3 cases bicycle material, \$101.
- Mexico—1 case bicycle material, \$12.
- New Zealand—14 cases bicycles, \$1,702; 6 cases bicycle material, \$114.
- Newfoundland—1 case bicycles, \$12; 4 cases bicycle material, \$85.
- Rotterdam—16 cases bicycle material, \$384.
- Southampton—3 cases bicycle material, \$89.

Turner Favors Long Cranks.

Dr. E. B. Turner, the English authority, is among those who have "plumped" for long cranks and high gears. Hear him: "During six months of last year I made a great many experiments, and found, as tested by body waste, that I could cover a distance of thirty miles over give and take roads with less exertion, when using a machine with 8-inch or 9-inch cranks and 84-inch or 96-inch gear, than I could when using 6¼-inch cranks and 63-inch gear, although the machine with the long cranks was several pounds the heavier."

Feature of the Fisk.

A peculiarity of Fisk tires is that one side is thickened by means of a strip of rubber underneath the outer cover and against the fabric. This forms a reinforced tread, which allows not only increased use of the tire before the rubber is worn through, but by reason of the peculiar quality of the rubber in the strip it cannot work loose from the fabric, as is often the case in other tires. The Fisk people rate this an important point, and one that adds materially to the value of Fisk tires.

The Retail Record.**CHANGES.**

- Danielson, Conn.—O. Potter, closed for the season.
- Belmont, Mass.—Joseph Quigley, closed for the season.
- Rutland, Vt.—Howland & Ingalls, removed to 83 Wales street.
- Lemoore, Cal.—Clark Henry, succeeds Eric Johnson.
- Bristol, Conn.—A. Munson, succeeds Munson & Nearing.
- Wallingford, Conn.—R. E. Badger & Co., closed for the season.
- Sodus, N. Y.—Bartle Johnson has purchased the Barber store.
- Riverside, Cal.—F. D. French, purchased the business of A. F. Palmer.
- Pittsfield, Mass.—J. Alexander, removed to the Gates Building, Fenn street.
- Hackensack, N. J.—J. Smith has purchased A. W. Fishbough's bicycle business.
- Vineland, N. J.—A. L. Aumack has purchased the Ross store at Sixth and Landis streets.
- Champaign, Ill.—Nicolet & Co., removed from No. 26 North Neil street to No. 18 Taylor street.
- San Francisco, Cal.—San Francisco Riding Academy, purchased the White Cyclery, No. 2,634 Fulton street.

NEW STORES.

- Millville, Conn.—Nathaniel Reed.
- Palo Alto, Cal.—F. A. Dinsmore.
- Sebastopol, Cal.—Draper Brothers.
- Chico, Cal.—D. P. Penick, Broadway, between First and Second streets.
- Sacramento, Cal.—The Capital Cycle and Novelty Works, assembling and repairing.

MORTGAGES, ETC.

- New Orleans, La.—George D. Cronan, sued for \$142.
- Brooklyn, N. Y.—John J. Carey, bill of sale, \$1.
- North Yamhill, Ore.—F. L. Trullinger, real estate mortgage for \$300.

FIRES.

- Steelton, Pa.—Keller & Mumma, loss \$300.
- Wichita, Kan.—Musselman Bros., North Main street, insured.

Influence of the Motor.

It is generally expected that the chief interest in the English shows, both of which are scheduled for next month, will be centred in motor vehicles. Probably a majority of the cycle firms will have something to show in this line, most of them confining themselves to motorcycles.

Many new types of tires are expected to make their appearance also. The growth in popularity of the motor vehicle, and the unsatisfactory character of the present tires, has stimulated makers and inventors to put forth extra efforts to produce tires that will be marked improvements over the present patterns. What degree of success will attend these efforts is entirely problematical.

The Week's Patents.

658,750. Pneumatic Tire Fastening. Joseph A. Berger, Chicago, Ill., assignor of one-half to John P. Larson, same place. Filed Jan. 15, 1900. Serial No. 1,521. (No model.)

658,861. Ice or Snow Vehicle. Louis Olson, Minneapolis, Minn. Filed June 7, 1900. Serial No. 19,432. (No model.)

658,867. Bicycle Frame Pump. Charles A. Romans, Danbury, Conn. Filed Nov. 2, 1899. Serial No. 735,566. (No model.)

658,874. Valve for Pneumatic Tires. John A. Spencer, Los Angeles, Cal. Filed Feb. 7, 1900. Serial No. 4,379. (No model.)

658,896. Driving Gear for Velocipedes. William H. Hirst, Hull, England. Filed June 4, 1900. Serial No. 18,967. (No model.)

658,901. Machine for Rolling Tubes for Pneumatic Tires. William H. Taneyhill, Columbus, Ohio, assignor of one-half to David B. Aungst, Akron, Ohio. Filed Aug. 4, 1900. Serial No. 25,299. (No model.)

658,909. Saddle Supporting Device for Cycles. Dessabhoi S. Fraser, Bombay, India. Filed Dec. 2, 1899. Serial No. 738,955. (No model.)

658,920. Wheel. Hyman Liebenthal, Chicago, Ill. Filed June 21, 1900. Serial No. 21,054. (No model.)

658,995. Bicycle Bell Mechanism. Perry A. McCaskey, Indianapolis, Ind., assignor to Henry T. Hearsey, same place. Filed Oct. 14, 1899. Serial No. 733,577. (No model.)

659,054. Velocipede Saddle. Ephraim J. Day, Lynn, Mass. Filed Jan. 3, 1900. Serial No. 207. (No model.)

659,081. Valve for Pneumatic Tires. Walter J. Lloyd, Birmingham, Eng. Filed July 23, 1900. Serial No. 24,590. (No model.)

659,123. Handle Bar. Alexander Bies, Schenectady, N. Y. Filed Jan. 11, 1900. Serial No. 1,132. (No model.)

659,138. Velocipede Brake. John Dring and Thomas L. Mitchelmore, London, Eng. Filed June 19, 1900. Serial No. 20,861. (No model.)

659,187. Bicycle Fork Crown. Henry L. F. Trebert, Syracuse, N. Y., assignor to E. C. Stearns. Filed July 16, 1900. Serial No. 23,853. (No model.)

DESIGN PATENTS.

33,301. Valve Case for Pneumatic Tires. Elton W. McCaslin, Chicago, Ill., assignor to Morgan & Wright, same place. Filed Sept. 22, 1899. Serial No. 731,355. Term of patent, 14 years.

TRADE MARKS.

35,202. Vehicle Pedals. Cycle Components Company, New York, N. Y. Filed June 6, 1900. The three letters "C. C. C." Used since Oct. 1, 1896.

Want Extension to Provinces.

So satisfactory have been the results of the use of bicycles by Paris postmen in collecting mail that a considerable extension of the system is contemplated. The postal authorities are thinking of asking for a Parliamentary grant to enable them to extend the use of bicycles for this purpose to the provincial postmen.

Fibre as a Noise Reducer.

Fibre chain wheels are being recommended in some quarters for motorcycles, both to better resist wear and to lessen the noise made by the steel ones. It is suggested that for the purpose of securing greater strength these wheels could be made of two layers of fibre with a steel plate between. As a compensation for the greater noise the latter would make, there would be the obtaining of sufficient strength to preclude the possibility of the teeth being torn away.

The idea of substituting fibre for steel is not an altogether new one, although former experimenters usually selected the chain for this purpose in preference to the chain wheel. The Overman company for several seasons used a chain made up of blocks of fibre and steel, the object sought being to lessen the noise. It did accomplish something in this direction, but the difference between it and a steel chain was not sufficiently great to commend it to other makers. As to increased strength, this claim was never made for it.

It is also a matter of record that fibre sprocket wheels were used, and with a certain measure of success. The Gormully & Jeffery Company fitted them for some time on its cheaper models—for the rear sprocket wheel, of course; and, if memory serves, on their highest priced machines, too, for a time. No particular difference was discernible between them and the steel wheels, and they disappeared without causing any comment.

With motorcycles it is possible that there is a greater sphere of usefulness in store for them.

Why the Motor Loses Power.

Why does a motor lose its power by heating? It is often said it is because the piston grips in the cylinder, etc., but the reason is quite different, unfortunately, for the piston can easily be made so as not to grip.

The loss of power is largely due to the fact that when the explosive mixture is drawn into the combustion chamber and the cylinder, it acquires about the same high temperature, so that the quantity of gas contained in the cylinder is much less than when the motor is cold.

Consequently when, after compression, the gas is exploded, the power and pressure thus obtained are much less than if the motor were cold. The depreciation is often over 50 per cent.

For Patching Cracks.

The following cement will be found useful in patching cracks which may have occurred in the brazing table: Five parts of pulverized clay, two parts of iron, free from rust (cast iron borings pounded into small particles are best), two parts of oxide manganese, half a part of salt and half a part of powdered borax. Mix thoroughly together and then add enough water to make it pasty. It should be used immediately, pressing it well into the cracks.

Look to Motor Vehicles.

Some apprehension has been felt in Akron, Ohio, lest the rubber mills of that town should suffer through the decreased demand for bicycle tires. These fears, however, appear to have been dispelled by an interview with a prominent rubber manufacturer of that city, who is quoted in press dispatches as saying:

"That the rubber trade has not suffered from this cause is evident from the fact that there are more rubber mills to-day than ever before. They are using more rubber and making more goods and making money in spite of high prices of raw material.

"Ultimately the bicycle trade will be on a sounder basis and prices will be stable. The output will keep pace with the demand, and the rubber factories will furnish the tires as heretofore. The tires to be made for automobiles will far more than counterbalance the decrease in tires made for bicycles."



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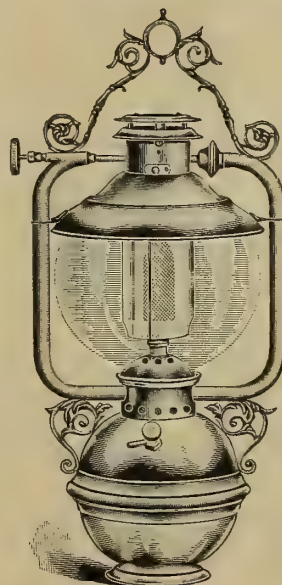
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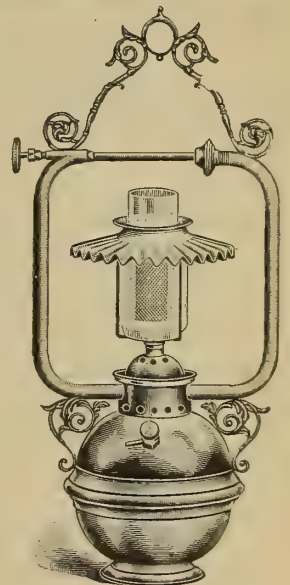
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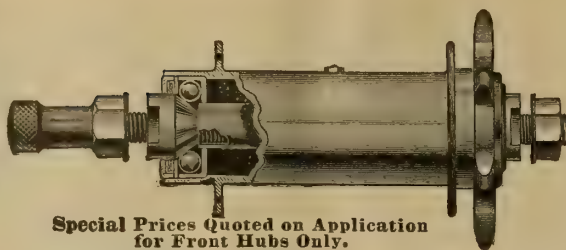
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AND MOTORCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., October 18, 1900.

No. 3.

TIRE TALK STILL ON

Three Days' Session Likely to Result in an Ironclad Agreement.

Certainly none engaged in the manufacture of bicycle tires can complain that the situation has lacked interest or excitement during the past six weeks.

Following the breaking away from the Tillinghast schedule, conference has followed conference and meeting has succeeded meeting in the endeavor to arrange a truce and reach an agreement.

From the best accounts, none of the gatherings has heat. In fact, they say that the erings has lacked heat. In fact, they say that the heat generated at the previous two days' meeting at the Waldorf-Astoria was so great that one of the parties to the discussion threatened to print and circulate an "exposure" of some kind.

However that may be, the tire makers again got together in the famous New York hotel on Monday of this week. Monday brought no results and the conference was carried into Tuesday. Tuesday found the tire men as far apart as ever. Discussion served only to widen the breach. There was emphatic talk about cancellation of contracts and the execution of heavy bonds to bind any agreement, but when the talk ended nothing had been done and it was given out that "it was all off," and that the several makers would go their separate ways in their own way.

Then it came out that the four principal makers dealing with unguaranteed tires—the cause of all the rumpus—would make one more effort to coax the dove of peace across their thresholds.

On Wednesday morning this quartette, the Hartford Rubber Works, the Diamond Rubber Company, the Goodyear Tire and Rubber Company and the Pennsylvania Rubber Company got together and spent the entire forenoon in conference. At that time it was announced that the dove was hovering overhead, and that there was every prospect that an amicable agreement would be reached to-night (Wednesday), to which time the meeting adjourned.

The Bicycling World's informant says that the details of the agreement will require the

services of lawyers for several days, but that when it is completed it will be absolutely ironclad and that further disturbance will be impossible.

From another interested source it is learned that the present minimum on unguaranteed tires, \$2.75, will be, in all likelihood, reduced. Just how much there is no means of foretelling.

The Bevin Brings Two Suits.

The Bevin Brothers Manufacturing Company, of East Hampton, Conn., has filed two bills of complaint in the United States Circuit Court against the Starr Brothers Bell Company, also of East Hampton. In one complaint the plaintiff company claims that the defendant company has infringed upon its patent for an improved bicycle bell, and asks that a preliminary injunction be issued restraining the defendant company from the manufacture of the bells pending the trial. In the other complaint the plaintiff company claims that the Starr Brothers Bell Company has also infringed its patent for another improved bicycle bell. Charles L. Burdett is counsel for complainant.

Reorganization at Jackson.

The Jackson (Mich.) Automatic Coaster and Brake Company has undergone a considerable reorganization, and will hereafter be known as the Automatic Coaster and Brake Company, with headquarters, as before, at Jackson, Mich. The coaster brake itself has also been altered and improved and it is the intention of the new company to push it aggressively.

Manson Plant Sold.

As a result of the sale last week at Chicago of the plant of the Manson Cycle Company, there will be some \$14,000 to divide among the creditors. Three bids were received in Judge Kohlsaat's court, and the highest, that of Arthur W. Fanning, of \$13,500, was accepted.

Metz Files Pedal Suit.

C. H. Metz, president of the Waltham Manufacturing Company, has instituted suit in the United States Circuit Court at Boston against the Iver Johnson Arms and Cycle Company for alleged infringement of his patent, No. 546,071. The patent covers one of Mr. Metz's several pedal inventions.

HAS SAGER STRUCK IT?

His Motor Bicycle a Development of Such Promise as to Cause the Query.

J. Harry Sager, of Rochester, N. Y.—he of Sager saddles and Sager gears—was in New York last week, with his motor bicycle which he has had in use for several months, but which he has been successful in keeping out of print.

That it will create a wave of interest when it is shown publicly is a safe assertion. It has every earmark and appearance of being a sure winner, and as a development in frame construction and general design it is far ahead of anything yet shown; the motor is stowed low down in the rear triangle, and is driven by chain and sprocket gearing.

It is not only simple and attractive to the eye, but the fact that the front wheel may be removed and the ordinary two-wheeled front seat attachment substituted, thus converting it into a tricycle for two, gives it another selling point that is of immense value.

In brief, it looks very much as if Sager is the long looked for man who has "struck it right."

Worcester Plant Sold at Last.

Middletown, Conn., Oct. 16.—In accordance with an order of the United States District Court, to satisfy a claim brought by the American Surety Company, of New York, to foreclose a mortgage of \$90,000 and interest, aggregating \$112,000, the plant of the Worcester Cycle Manufacturing Company in this city was sold to-day to the American Surety Company for \$87,000. It is understood that this sale is in the interest of the New York Motor Vehicle Company.

Orient Reduction.

The Waltham Manufacturing Company is the first to make an announcement of 1901 price—a reduction of the Orient Leader from \$65 to \$50. At \$65 the model was the highest priced chain wheel on the market, but at that the Orient people say that Leaders formed one-third of their 1900 output.

Admitted Without Contest.

The will of R. P. Gormully was admitted to record in the Probate Court at Chicago last week without contest of any kind.

ASSEMBLERS SCORING

While England's Big Makers' Toy With Motocycles, Others Are Profiting.

London, Oct. 6.—It is rather curious to note that so far very few of the best known firms in the cycling trade have given that attention to the manufacture of the motorcycle that it deserves. With the exception of the Ariel company, which has at the present time a very long lead here, owing to the fact that the designs of the tricycles and quads built by the firm have been original and have not blindly followed the French models, no really large cycle manufacturing company has gone thoroughly into the motor business. A few have made half-hearted attempts, and these houses have done a certain amount of trade, principally owing to their reputations in the cycle-making line; but, generally speaking, it is the middle class firm which has shown the most enterprise in this direction. In this I do not refer to the parts makers, because such houses as the Eadie Manufacturing Company, Limited, have for some time past been turning out excellent motor parts—mostly to French models, it is true, but still excellent—and these have been largely employed by the smaller assemblers, or, as they prefer to call themselves, "local manufacturers." But what I should like to see is more originality in design and an absence of that mere imitation which is at present the only idea of motor making which we have in this country.

CALLS IT A MOTOCYCLE CAR.

I saw a very nice little motorcycle car—if I may so call it—when I looked in at Friswell's Automobile Palace, on Holborn Viaduct, the other day. The machine followed the lines of an ordinary cycle quad, but the pedals were replaced by a small footboard, while the saddle was removed and a comfortable seat attached in its place. The whole machine much resembled my idea of a cycle car, except that the steering was of the wheel variety instead of utilizing the ordinary handle-bar, which it seems to me is more suitable for such a light vehicle. Wheel steering is undoubtedly the thing for large cars, but for motors which so much resemble the ordinary cycle as the pattern under notice I think that a wheel is unnecessary, and is, indeed, not likely to prove so satisfactory in practice, since any form of geared steering does not answer so speedily as an arrangement of the handle-bar type, and hence does not control a light vehicle so quickly or with such certainty, for light cycle cars or motorcycles are given to slipping when travelling over greasy surfaces.

TROUBLE WITH TRAILERS.

This tendency to skid on grease is particularly noticeable in the case of tricycles to which trailers are attached. The other day I saw what might have been a very nasty

accident owing to this. The rider of the tricycle applied his brake, when the trailer skidded violently, colliding with the driving wheels of the tricycle and upsetting the latter machine. This was directly due to the fact that none of the trailers are fitted with brakes. In order to prevent the possibility of such an accident occurring, the brakes should be on the wheels of the drawn vehicle, but under the control of the rider of the tricycle. Under these circumstances any sudden application of the brake will not tend to upset either machine.

HIGH HORSE POWER MEANS HEAT.

The larger size motors now fitted to many of the more recently imported tricycles are already causing great trouble in not a few cases. The overheating which takes place practically negatives the increased power of the motors, and as a result I know four riders who have sold their more recently bought machines and gone back to tricycles of $2\frac{1}{4}$ h. p. In another case a gentleman who has been troubled by the undue heating of the motors of two or three tricycles has sold the machines and bought, at a very much less figure, a $1\frac{1}{4}$ h. p., which does not give any cause for complaint in this particular. The curious thing is that he obtains a very fair speed, taking the whole day, somewhat in excess of that he got out of the other machines. Moreover, considering the period of police persecution through which we are now passing, a low-powered tricycle is quite fast enough, and likely to prove cheaper in the matter of fines, for, really, at the present moment the annual bill of fines and costs is a very heavy additional tax upon the motocyclist, and in some cases has amounted to nearly the cost of the tricycle.

USED IN ELECTIONEERING.

Motocycles and cars have been freely used during this week's elections, and on both sides these vehicles have been pressed into service. In many of the districts motorcycles have been employed for days before the actual polling, the riders using the machines for house to house calls and for tracing any changes of addresses. The average politically inclined cyclist is, as a rule, not sufficiently good on an ordinary cycle to do a very heavy day's work, but on a motor he can cover an immense amount of ground, and so do good for his side. Nevertheless in some districts the users of the machines have found it is well not to wear any colors showing their political views, as these might tend to render the chances of getting along without damage to the machine rather remote. Motocycles are not popular in some places, and at election time the opposition might be too much for the machines.

SHOULD USE AMERICAN TIRES.

There can be no doubt that before the motorcycle can hope to become really popular not only must the price be reduced very considerably—this is a comparatively easy thing, as there is now a big margin—but some pattern of pneumatic tire must be devised which will give better wearing results

than any of the types now offered. At the present time the tire question is, without doubt, the most serious one for the consideration of the motocyclist. The tires soon begin to show signs of wear, and the covers become badly cut in the first thousand miles or so. Sundry bands are sold to prevent this, or rather to save the actual tire covers, for these bands, when badly cut, can be replaced, but even this cost is very considerable, and there is a certain difficulty in securing the protecting strips in place. There is plenty of opening for an inventor who will bring out a tire for motorcycles which will last for a reasonable time, say, as long as the tire fitted to pedal-propelled cycles.

Australian Trade "Away Off."

Melbourne, Sept. 10.—Almost throughout Australia the trade has gone from bad to worse. In the southern colonies they have experienced a most trying winter, as for fully five months it has been exceptionally wet—a very unusual thing for this country.

The trade started the winter badly; the season broke about a week before Easter and has not let up. It was thought that with a fine holiday season to wind up the summer the dealers would have something to work upon during the "off" term. But nature disposed otherwise. Consequently we have seen a large proportion of the weak houses go to the wall; three failed this week, one of them a house of some importance.

Nothing further has transpired here with reference either to the American Bicycle Company or the Canadian combine, although it is generally understood that the Massey Harris people have a good thing on. September should make a bit of a stir in the trade—that is, if the skies brighten again.

Racing men are feeling the pinch, and this just at the beginning of training. They have found that the trade wants none of them, and that they can no longer procure machines to race upon ad lib. just for what advertisement may be derived from the results of racing. The next best thing (and cheapest) is to procure parts and assemble them, because, as one of them said: "If I have to pay for my jigger I'm not going to let any one benefit from my riding!" Cycle racing still goes by the name of sport!

Death Intervened.

Sterling G. Wilson, formerly assistant superintendent of the Snell Manufacturing Company, of Toledo, Ohio, died last week after an illness of considerable length. He was twenty-five years old, and went to Erie, Penn., where his death occurred, to occupy a similar position with the Penn Cycle Works.

Will be Sold at Auction.

Frank Miller has purchased the entire stock of H. M. Manwaring, the bankrupt Bridgeport (Conn.) bicycle dealer, and is arranging to dispose of it at auction. The price paid is not given. Arrangements are now under way for the disposal of the stock,

TALKED OF SCREW THREADS

Those Used in Cycle Construction Give Rise to an Interesting Discourse.

Owing to the low margin of safety in all parts used in the bicycle, it is frequently necessary to deviate from the standard methods of construction. That this is particularly true of the bolts and nuts used is made clear by a paper read to the British Association by President Clements of the Birmingham Small Arms Company.

The title of the paper was "Screw Threads for Cycles and for Screws Subject to Vibration," and the position of the Small Arms company, which is one of the biggest makers of cycle parts in the kingdom, adds greatly to its value. The salient features of the paper are appended:

"When Sir Joseph Whitworth framed his system of threads and pitches he had not at his command the superior quality of steel for the manufacture of screws which we have in the present day. If he had, I venture to think that his system would have been somewhat modified both in shape of thread and in pitch.

"There are serious objections to the adoption of a flat-topped thread for screws used in cycle work, and for screws subject to vibration. It is certain that the flat-topped thread cannot give the frictional resistance to vibration which is the case with the round top; and in the economical production of such work it would be very difficult to maintain the correct shape of the thread. In this production screwing dies are chiefly used, and these tools show the first and most rapid wear on the parts forming the sharp edges or corners of the thread. For this reason it will be found a serious matter to keep up the screwing tackle, male and female, in the proper working condition necessary to produce flat-topped threads, especially if they should have a small angle of the sides.

"I am regarding this matter from the commercial point of view—that is, the production of work in quantities to be profitable and accurate, so far as accuracy is commercially possible.

"The screws used in cycle construction are subject to even more continuous vibration than gun screws, but, owing also to the low margin of safety in cycle work, it has been found necessary to use shallow threads, so as to give the greatest possible strength to the core, and to obtain a large angle of the sides of thread, which especially is important, as a large number of parts are hardened, and therefore the greatest possible strength of thread is necessary.

"While a few firms use the Whitworth thread exclusively, others use a shallow thread, as before described, in a portion of

their component parts, with Whitworth threads in the remainder. With the exception of two instances, the shallow thread is adopted throughout for Birmingham Small Arms cycle components.

"Time, however, will not permit me to give the reasons why a different thread is used in the two exceptions, but they illustrate the necessity which sometimes arises for the adoption of a different thread to suit altered conditions."

Cushion Frame's Invasion.

Nothing succeeds like success, and it is not surprising that the cushion frame, having won its way in this country, should now be entered for the race in Great Britain.

Such is the case, and the inhabitants of the "right, tight little isle" will soon be given a chance to see whether they like this leading exponent of vibration-absorbing devices.

When the well known Joseph Friedenstein departed from these shores a short time ago, leaving behind a stock of motorcycle parts, he carried with him as a fair exchange the sole rights for Great Britain of the Hygienic Wheel Company's cushion frame. He will push the sale of the device vigorously, selling the parts ready to be assembled into machines or granting licenses for its manufacture in the factories of the larger concerns. Negotiations having this end in view had been pending for some little time, Vice-President Chute of the Hygienic Company told the BICYCLING WORLD representative last week, and the arrangements were completed just before Friedenstein departed.

"Already," said Chute, "the device has met with a favorable reception in England. Machines fitted with it are being freely offered for trial, and the results have been most gratifying. The outlook, Mr. Friedenstein writes us, is most pleasing, as the device is looked upon as just what was wanted."

More Decalcomanias in Sight.

The Scientific Manufacturing Company, The Rookery, Chicago, has leased, with an option of purchasing, the plant formerly used by the Gray Electric Company, at Highland Park, Ill. The property secured comprises eight acres, on which are a three story and a two story factory building, together with ten cottages for employes. The company will manufacture commercial decalcomanias, the supply of which until late years came largely from abroad. The equipment of the plant has been purchased, and the company will soon be in readiness to make shipments, for which they are already taking orders. The executive officers of the company are A. M. Crane, president, and J. A. Carey, secretary. Mr. Crane was formerly general sales agent of the Illinois Steel Company, and more recently assistant manager of the American Steel and Wire Company. The Scientific Company will cater for the cycle trade's patronage, among others.

NOW FOR LONG CRANKS

Orient People "Plump" for and Will Furnish Them in Many Lengths.

THE BICYCLING WORLD'S urging has not been in vain.

Its contention that longer cranks were needed with the higher gears and that a discussion of the subject and the production of combinations of the sort would create stimulating talk and trade interest awakened Orient enterprise, and as a result Orient bicycles with long cranks and high gears will be a feature of the Waltham Manufacturing Company's line for 1901.

The formal announcement was made this week, coupled with the statement that machines so equipped were ready for shipment.

"It is just the bicycle for winter riding," say the Waltham people, in drawing attention to it, and in urging that it be taken up now and made the most of during the remaining months of this year.

The wheel so equipped will be the Orient Leader, the price of which will be reduced from \$65 to \$50, although the equipment necessitated changes that increased the cost of manufacture. For 1901 the Leader will be made in three models. The regular frame will have practically the same lines as in 1900, and will have either the 26-inch or 28-inch front wheel. It will also be made with less drop, and be fitted as desired, with $7\frac{1}{4}$, $7\frac{1}{2}$, $7\frac{3}{4}$, 8, $8\frac{1}{4}$ or $8\frac{1}{2}$ inch cranks, and with any gear up to 120.

The Orient people have had several of the wheels in use, and as a result of the experience gained say they are positive that a great many riders can get better results with $7\frac{1}{2}$ or 8 inch cranks, and in some instances even $8\frac{1}{2}$ -inch. In reply to their circular asking for suggestions for 1901, they say the "one demand of the retail trade seemed to be for new talking points," and having provided a good one they mean to make the most of it.

Light Will Branch Out.

At the annual meeting of the stockholders of the Light Cycle Company, held at Pottstown, Penn., last week, the following officers and directors were elected to serve for the ensuing year:

Officers: President and superintendent, W. I. Grubb; vice-president, J. S. Wagner; secretary and treasurer, E. S. Fretz.

Directors: W. I. Grubb, E. S. Fretz, M. A. Mory, H. B. Christman and J. S. Wagner.

The company is in a prosperous condition and is now turning its attention to automobile manufacture.

Heart Disease the Cause.

Joseph Majersky, who kept a bicycle store at First and Mercer streets, Passaic, N. J., was found dead in his room last week. The physician called in certified to his death from heart disease.

Bicycles Made To Measure.



RIENT "LEADER."

"Pretty nearly perfect" is the universal judgement pronounced on 1900 ORIENTS. Is there any chance for improvement? Just one! Heretofore manufacturers have confined their attention to bicycle construction, regardless of the man. The tall rider and the short rider has had difficulty in securing a mount exactly adapted to him. It remained for ORIENT progressiveness to supply the remedy.

Experience has shown that in this particular the long crank "crank" is not such a crank after all, for high gears and long cranks are the key-note of perfect fit, and about the only enthusiastic wheelmen to-day are those who are properly fitted.

We know that the high gear, long crank combination is practical. Are you ready to be convinced? Write us to give you the benefit of our views, and those of many experienced riders.

Orient agents who do not within a fortnight get full instructions of our coming methods, together with confidential disclosures for 1901, please write for particulars.

WALTHAM MANUFACTURING CO., Waltham, Mass.

Makers of Bicycles, Autogons and Motor Carriages.

What's the Price ?

You hear it everywhere and every day.

It's the Question

of the day and hour and of every trade.

If you are of the cycle trade

THE PRICE OF PEDALS,

of Star and Bridgeport Pedals,

CANNOT FAIL TO INTEREST YOU.

We hold the key to the pedal situation. We have unlocked it for others. May we unlock it for you?

BRIDGEPORT GUN IMPLEMENT CO., 313 BROADWAY, NEW YORK.

THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
"The Wheel" and the "American Cyclist."

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, OCTOBER 18, 1900.

No Time for Faint Hearts.

It is beginning to dawn on the trade that the present "slump" is not wholly a mysterious visitation, for the coming of which its members are entirely without responsibility.

It was not foreseen—at least, not in all quarters—although, in the light of present knowledge, it might have been. Eyes and ears were closed to signs which might have been interpreted had the effort been made.

It had become too much the custom to regard undiminished sales as a permanent feature of the business. A falling off might be possible at some distant period; but it was not necessary to worry about it now, reasoned these optimists.

Lulled by this false security, the trade was unprepared for the shrinkage that took place, and could not lift a hand to check it. In fact, the pace was, if anything, accelerated by their dazed reception of it.

Even now there is too general a disposition to accept what is deemed the inevita-

ble; to sit supinely by and listen to—or even join in—the cry, "Cycling has gone out of fashion."

Just the opposite course should be taken. A timid, disaster-expecting policy cannot but make matters worse; yet too many dealers show a disposition to follow it. If not combatted it is sure to grow on them.

Whistling to keep up one's courage is not an easy task, nor can it well be made convincing. It is obvious, therefore, that real courage must take the place of the sham kind if a winning fight is to be made.

It is far better for such members of the trade as take the view that the business will no longer afford a living to quit it. By so doing they will serve their own interests, as well as leave a clear field for those who are bolder or take a more hopeful view of the situation.

Above all, now is the time to make a decision, to resolve to stick or to resign one's self to the inevitable and get out.

Only the two courses are open. Those who are left will take up their task with a lighter heart when the decks have been partially cleared.

Popularity and Cheapness.

It has been asserted that the curse of the age is the craze for cheapness.

Sooner or later—frequently sooner—every article which attains any marked degree of popularity is cheapened. The quality does not always suffer, or at least not in proportion to the drop in price, but it is certainly not improved in anything like the degree that is possible.

There is much to be said in favor of price reductions on articles that have become standard.

Processes of manufacture have been both improved and cheapened, and the maker can well afford to make substantial concessions; while the buyer is entitled to better figures than could have been given to him when changes in patterns were frequent and experiments were the order of the day. Consequently the logic of events brings about a readjustment of values and satisfaction—on the part of the public at any rate.

But when the cry for cheapness is raised too soon nothing but harm can result. If it is heeded and prices fall in obedience to it progress is checked, striving for the best comes to an end, and a low standard of excellence is set up. If, on the contrary, the trade heeds it not, dissatisfaction results or the public holds back, waiting for the expected drop in prices.

At the present time the best motorcycles are none too good, too reliable or too satisfactory. Wonderful improvements are probable—nay, certain; there is scarcely a part of the machine that is not susceptible of betterment, of change.

But to bring about this transformation will require time and money—a liberal supply of both. The problems to be grappled with are almost inconceivably difficult; yet they will be solved before the machines pass from the experimental to the thoroughly practical stage.

The passing of the experimental stage is just as earnestly desired by those who, unthinkingly or unknowingly, clamor for price reductions. Yet that the two are incompatible is as plain as day and night.

It is said that motorcycles can never become popular until they become cheaper. Granted that this is true; but what of that? Popularity is neither desirable nor possible, and the less there is heard of it at present the better.

The placing of hundreds of thousands of machines at the service of the public would be a calamity, for at the hands of careless and ignorant users they would reflect no credit on their builders or themselves. So, too, such an occurrence is a physical impossibility; only the most moderate demand could be supplied now and for some time to come.

This being so, why should there be big price reductions made to create a popular demand? No possible object could be served by them at present.

All that is needed is the production of a moderate number of reasonably priced motorcycles. They will find ready purchasers next spring.

The Wail of the Cycling Galoot.

There are three of them—the dog that bayed at the moon, the jackass that tried to kick over the sun and the "Cycling Gazette." That they are of a class few will disagree.

If ever there was any doubt about it the effort of the "Cycling Galoot"—as the "Gazette" is so often dubbed—to moralize on "A Trade Journal's Duty" is sufficient to dispel the most lingering doubt.

Viewing its own attenuated body and then beholding the plumper and healthier BICYCLING WORLD, the Russian brass which enters so largely into the "Galoot's" makeup has turned an envious green. Like the sun-affected ass, it then brays with one end and kicks with the other, believing that

in some way or other some of the WORLD'S prosperity will be transferred to itself.

The great mistake the "Galoot" makes is in fancying itself a trade journal and in taking itself seriously. It probably never will, but it ought to be able to appreciate that it never was a trade journal, and as at present constituted, never will be one; it knows little about the trade it misrepresents, while the trade has come to know the "Galoot's" true measure so well that, ipse facto, it cannot become a part of the trade.

The "Galoot's" prattle about the duty of a trade journal is a mirror which faithfully reflects itself. It speaks its character when it says in effect that, though it knew white to be black, it would say it was white until some one daubed its eyes and mouth full of the blackest soot.

If the "Galoot" had desired it could have used much simpler language to state its policy. It might, for instance, have said: "We print anything about any one—if it promises us a dollar in return; we print nothing about any one that promises the loss of a dime." Had the "Galoot" used this language it would have told the simple truth about itself.

The "Galoot" tries to defend its policy by maintaining that only "taffy" should be spread on the pages of a trade journal; that it is no place for criticism, for recording trade failures, discords, deaths or any other misfortune or unpleasantness, or for pointing out trade mistakes and urging that use be made of such experiences.

But when its system is purged of Russian brass, if ever it is, it may awaken to the knowledge that a trade journal is a faithful record and reflection of the trade it represents—a record of its trials and tribulations as of its joys and triumphs. If it sees a wrong it seeks to right it. If it notes progress it seeks to hasten it. It aims to make of itself a medium for the exchange of trade views and opinions; it aims to publish the news of the trade while it is news, and while doing these things it yet seeks to maintain its self-respect and the respect of the trade.

For the most part, the cycle trade is composed of men, not of hysterical old ladies. They can appreciate an argument, and accept an urging; they can read of a failure or a lawsuit without a faint or a shiver; they can read an unpleasant truth or a pointed interview without a wail or a weep, and they are as much interested in trade disturbances as in trade amenities, as the

one usually concerns their businesses far more than the other; they read papers to acquire knowledge and to gain information; they want trade news, not trade "puffs" and platitudes.

No trade journal or other publication can please every one; that is beyond the human power, and those papers that, like the "Cycling Galoot," sacrifice everything to that end, become mere milk and water, and without power or influence, they must hire asses to bray for them, else they attract no notice and are lost to view.

Can any one recall any conspicuous news service or other service that the "Cycling Gazette" has rendered the trade? Can any one turn to its pages of a month or a year or two years ago and find a record of trade occurrences as they occurred—the truest proof of a trade paper's service and value.

The "Cycling Galoot" should stick to its last. It should continue to hurl editorial thunderbolts at tin horn racing men, and paper javelins at L. A. W. politicians; they have no advertising patronage to dispense, and it is therefore on safe ground. In its trade attitude let it hold fast to its reputation as the trade lickspittler and continue to acclaim that it wouldn't harm a trade flea if it saw one. Let it continue to bolster the credit and increase the reputation of the trade shyster and fakir by throwing its columns wide open and singing its favorite song: "We print any 'puff' from anybody (who has anything to advertise) without changing a word."

This policy of permitting the shyster to write his own "puff," and thus make himself appear as large and as reputable as the large and reputable merchant is the key-stone of "Cycling Gazette" journalism. It has caught some flies, it may catch others; but, generally speaking, the trade is beginning to discriminate between the true and the false in trade journalism, as in other things, and the "Cycling Gazette" is feeling the pinch.

The "Cycling Gazette" is not a cycling gazette; it is a journalistic jumble; a journal of and for trade puffs; it is a cycling galoot, and, capitalized, the term fits it truly and well.

Making Ready for Motocycles.

Every week that passes foreshadows more clearly the coming of the motorcycle.

There is a considerable amount of preparation being made for it; the manufacturer is getting ready to build it, the dealer to sell

it, the repairer to repair it; but with all this there is not as much preparation as the matter requires.

As an example, take the repair man. The present is his golden opportunity, and for a twofold reason: there is time to fit himself to meet the rush when it comes, and by a fortuitous combination of circumstances that time comes just when the repair man has nothing else to do but fit himself.

But how many repair men are taking full advantage of the opportunity thus presented? A considerable number, assuredly, for it would be a damning indictment of the fraternity if no members of it were able to see beyond the end of their noses. But the number is by no means as great as it should be.

Some are saying that they will wait until the rush comes; then they will buckle down to it and make short work of it. That is the easiest as well as the best way, they think, and so fool the precious time away.

Others allege that they are not able to take up anything new at this time. All their energies are required to keep their heads above water after the slack season just closing, and they cannot afford to dabble with anything else. When spring comes, however, they will be in a very different position.

This is undoubtedly true, but not in the sense they mean. Spring will come and find them unprepared or prepared only to do such work as their longer-headed competitors are obliged or prefer to turn away. In other words, it is the leavings that will fall to their share.

Such fatuity is deserving of the severest blame, but it is not altogether surprising. The non-progressives would not be true to their history did they evince a disposition to take to heart the lessons of the past.

But the men who will survive the struggle that is taking place are not hanging back. They are studying motorcycles, dissecting them, repairing them at nominal figures if they are not in a position to demand the regulation prices.

It is, with them, anything to acquire experience.

"We wonder what sort of an opinion the trade entertains toward a paper of the BICYCLING WORLD character," wails the Cycling Galoot. As the last issue of the BICYCLING WORLD contained just about 125 per cent more advertising than did the Cycling Galoot, it is evidently a pretty good opinion.

WHY LONG CRANKS

Exhaustive and Illustrated Argument is Brought to Bear by Capable Authority.

As the question of crank length in the cycle has produced a great deal of discussion of a practical nature, says Walter Phillips in "The Cyclist," I think that the time has arrived when something in the way of a proof should be given, and without entering into the vexed question as to the proper length of crank for every rider I will endeavor to show in as popular a way as possible what are the relative values of one length of crank as against another, and then, after deducing a result, to apply this to the cranks of a cycle.

In the first place, a common understanding must be arrived at. That all the pressure to drive a crank forward must be applied at a given point, it must be released at a given point, and that the application of

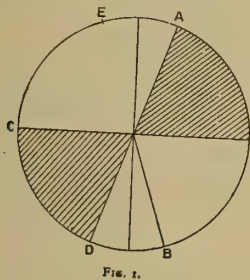


FIG. 1.
6in. CRANKS.

the leverage shall be in the same relative proportion throughout. We will, therefore, assume that the power is applied at 2 inches past the top dead centre, and that the effective power will cease at 2 inches from the bottom dead centre, the power being applied in a vertical direction, and that the ratio be one to ten between the lever and the resulting power; three lengths of lever to be dealt with, viz., 4 inches, 6 inches and 8 inches.

The half circumferences of circles, of which 4 inches, 6 inches and 8 inches are the radii, are 12.56 inches, 18.8 inches and 25.13 inches respectively; after deducting 4 inches (the added distance of no pressure) from each we get 8.56 inches, 14.8 inches and 21.13 inches, the remaining portion through which the power is passed. The relative speeds of each of these is inversely as the lengths if the same pressure is to be applied in a given time; it follows, therefore, that the 4 inches would require to make a speed of 17.12, 6 inches 19.73, to be equal to the 8 inches at 21.13; or, if these figures be turned into gearing, we get 171 inches, 197 inches and 211 inches for the respective distances the same application of power will give when applied at the ends of the 4-inch, 6-inch and 8-inch levers. Thus, with the same total application of pressure there is a gain of nearly 20 per cent between the 4-inch and 8-inch and of 6 per cent between the 6-inch and 8-inch levers.

This leads us to consider the application of the proof to the cycle, which, being a single-acting machine, is dependent on the action of a second lever as against a single cylinder double-acting engine exerting its power on one crank. The cycle has with its two cranks a distinct advantage over the steam engine, because there is the power in

6in. CRANKS.

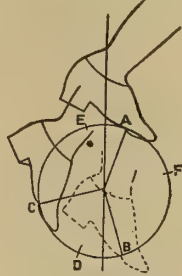


FIG. 2.—CENTRE OF SADDLE WEIGHT, 4½in. BACK FROM VERTICAL.

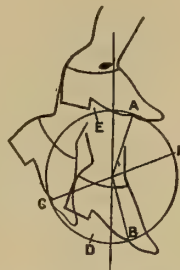


FIG. 3.—CENTRE OF SADDLE WEIGHT, 11in. BACK FROM VERTICAL.

the cycle not possessed by the engine, it being able during a portion of the complete revolution to have both feet in action, viz., one pushing down on the front stroke and the other clawing or pulling up on the back stroke. We must again resort to an assumption in order to show an equality in the argument. The downward pressure is to end 2 inches from the bottom centre, and in all cases the clawing action is to commence there, and terminate when the crank has passed upward half its way to the top centre; in other words, it is square to the vertical line.

Referring to Figure 1, which in each case represents the respective lengths of lever, A is 2 inches past the top centre, B is 2 inches before the bottom centre (the commencing point of the clawing action), C is the end of the clawing stroke (I call it the clawing stroke, but it includes the pulling upward). We now take the figures. For the 4-inch crank the shaded parts equal 8.56, for the 6-inch 14.8 and for the 8-inch 21.13 inches, but if these be multiplied, so that the ratio of the shorter cranks is the same as the longer, we get 17.12 inches, 19.73

8in. CRANKS.



FIG. 4.—CENTRE OF SADDLE WEIGHT, 4½in. BACK FROM VERTICAL.



FIG. 5.—CENTRE OF SADDLE WEIGHT, 11in. BACK FROM VERTICAL.

inches and 21.13 inches respectively as the amount wherein both feet are in action, with only the same application of pressure. What effect the two feet being in action at the same time has on the machine can be easily arrived at. Taking our assumption as before, and reducing the respective lengths of the 4-inch and 6-inch cranks to that of the

8-inch, we get for the 4-inch 19.1 inches, 6-inch 22.1 inches and 8-inch 26.2 inches of the whole circumference of the circles wherein both feet are in action, and, if multiplied by the ratio of the gear, 191 inches, 221 inches and 262 inches distance travelled, as in the case of the cycle, of the wheel over the road. These figures show a gain for the 8-inch crank of 36.9 per cent over the 4-inch and 15.7 per cent over the 6-inch. So far the clawing or pull stroke has been taken to end in all cases at the same place. In practice, however, this is not accurate, and if the point on the crank circle be taken when the tangent of the circle is coincident with the line drawing through the ankle and knee joints, it will at once be seen that the larger the diameter of the circle the later will be this point, and it therefore follows that with the 8-inch crank the clawing or pull stroke is carried further up. We now come to a question with regard to the so-called ankle action on the top centre. Again examining the diagram, it will be seen that the clawing or pull stroke on the bottom

6in. CRANKS.

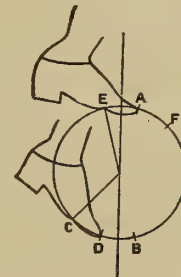


FIG. 6.—CENTRE OF SADDLE WEIGHT, 14½in. BACK FROM VERTICAL.

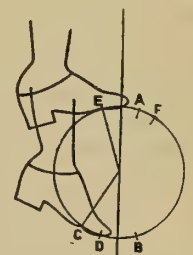


FIG. 7.—CENTRE OF SADDLE WEIGHT, 24in. BACK FROM VERTICAL.

starting 2 inches before the bottom centre is reached must have some effect on the other foot, which is reaching the top centre, and if this latter foot can really be pushing in a horizontal direction there is no doubt that some power might be added to that of the other foot. In consequence, however, of the forward position now adopted by riders the foot at the top centre cannot approach the horizontal at all, but really passes the centre with somewhat of a downward pointed action. Figures 2 and 3 are for a 6½-inch crank, and show the positions where the saddle centre of weight is 4½ inches, and 11 inches back from a vertical line drawn through the crank axle. The latter position is the one almost universally adopted by the ordinary rider, while the former is that used by the "speed merchant." The point A is the commencement of the pressure, B the termination and commencement of the clawing or pull stroke, C is the termination of the pull stroke, D, E and F are the different positions of the other foot corresponding with A, B and C. Figures 4 and 5 are the same positions for the 8-inch crank. It will be seen that the pull stroke in Figures 4 and 5 is carried much further up than in Figures 1 and 2. Figure 6 is a position with the saddle centre of weight 14½ inches back from the vertical, in order to obtain the first trace of heel dropping before the top centre is reached, and it is very doubtful if

there is any but a retarding pressure as the point of the toe is slightly downward; consequently the pedal has to lift before it passes the centre. To obtain the position of heel dropping so much advocated by writers, Figure 7 shows us the saddle centre of weight 24 inches back from the vertical. In all the diagrams the greatest amount of heel dropping possible has been given. I leave these figures to your readers, as I consider they should at once put an end to the question of ankle action. Now revert to Figures 2 and 4, as compared with Figure 1. It will be seen that in Figure 2 the two feet are not in action so long as in Figure 4, and if the difference be calculated it will be found that there is a further considerable gain of the 8-inch crank over the 6½-inch. From measurements on the figures there is 15 per cent difference between them, and, added to the former gain, we shall have something like 20 per cent increase of motion from the same power. This does not mean, however, a paradox, but that there is a greater loss of resulting power from the shorter crank. How much of this gain is lost in friction I am unable to calculate, but if there be a loss with the long cranks there must be a certain proportion of the loss equally attributed to the short cranks. There is no doubt from examining the figures that the further forward the saddle is placed the greater length of pull stroke is available, and consequently the longer time both feet are in action; Figures 6 and 7 clearly show this

as compared with the rest of the diagrams. This means that if the so-called ankle action at the top is worth anything at all it must be got from a backward position, with the loss of length in the clawing or pull stroke. Riders of all classes have solved this question by putting forward their saddles to overcome the loss.

Summing up the whole question, I consider that I have proved that there must be an advantage in the use of long cranks from a mechanical point of view—a proof that is certainly backed up by figures, and, in my own case, by practical demonstration.

Retired Dealer in Luck.

Word has been received in Newark, N. J., that William E. Eldridge, a retired bicycle dealer, formerly of that city, and one of the best known retailers in the metropolitan district, has secured a verdict of \$10,000 in the Supreme Court of Spokane County, Washington, in his suit against the Young America and Cliff Consolidated Mining Company.

Eldridge some time ago was induced to put \$10,000 into the concern on the representation that the money was to be used in purchasing machinery for working the mine, which was reputed to be rich with gold and silver ore. He brought suit on the ground that the facts were not as represented.

"Motocycles and How to Manage Them." Price 75 cents. The Goodman Company.

Making High Grades Only.

The Fisk Rubber Co., makers of Fisk tires, are this year making nothing but high grade goods, their endeavor being to give better quality than heretofore, if possible, at equal price. The satisfaction Fisk tires have given to Eastern riders the past year will add much to their popularity this season, while Western dealers clear through to the Pacific Coast are now handling and carrying them in stock. The growth of the Fisk company has been remarkable, and simply goes to show what honest endeavor, a high grade article and liberal use of customers will do. The Fisk factory is reported taxed to its utmost capacity.

Old Timers Seek Relief.

Two formerly well known figures in the trade appeared before the courts last week asking for relief under the Bankruptcy law. They were Luther H. Porter and James M. Gilmour, who composed the firm of Porter & Gilmour, makers of bicycles, formerly at 16 Warren street, New York. The firm liabilities are \$3,346 and no available assets. Porter has individual liabilities of \$5,366 and Gilmour has individual liabilities of \$6,166. Each has a bicycle as an asset. They gave up business four years ago.

Uses a 12 H.-P. Motocycle.

M. Rigal, who is now the crack Parisian motocyclist, and who holds the mile record of 1:16 1-5, is using a 12 h. p. tricycle—undoubtedly the most powerful motocycle in existence.

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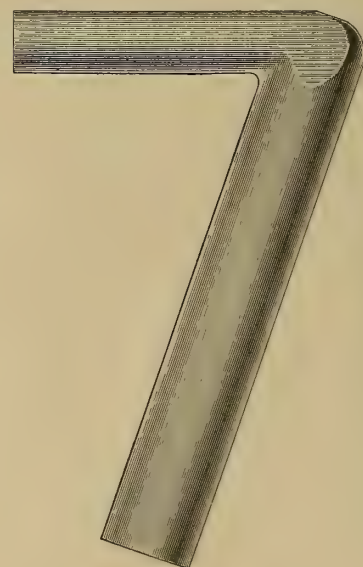
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THE STANDARD WELDING CO.,
CLEVELAND, OHIO.

FOLLIES OF FASHION

How They Have Harmfully Affected all Trades and all Pastimes.

Isn't it quite unnecessary, as well as cruel, that whenever any form of amusement ceases to be a fashionable fad a lot of people make haste to declare that it is dying? says John Habberton in the Philadelphia Saturday Evening Post. The latest undeserving sufferer from this species of libel is golf; a few months ago a similar story was told about bicycling; two or three winters have passed since it was first whispered that tobogganing had had its day and ceased to be; and still earlier we were assured that archery had "gone out."

Meanwhile every one who really enjoyed golf or bicycling or archery in other days likes it as much as of old—probably more—and indulges in it whenever fitting opportunity offers. But it is the misfortune of the spirited folk who are fond of outdoor recreations of any kind that at an unexpected time, whether by accident or design, their favorite sport suddenly becomes fashionable and is taken up by countless men and women who "go into it" merely because every one who is any one appears to be doing likewise.

To be in the fashion is the most serious of earthly duties to some people, and the sense of solemnity is visibly manifested even when the duty assumes the name of a sport. Judged by the faces of some of the participants for fashion's sake, golfing is martyrdom to many women and not a few men; bicycling is a continuous earthquake terror; heart failure is imminent on the toboggan slide; archery is agony to finger tips and a mocker of eyesight; rowing and paddling tend to apoplexy; horseback riding is a tussle with contrary beasts; and croquet is a weariness to the limbs and spinal column. There are other sports, but something is wrong with all of them.

The truth of the matter is that people who take up a sport merely because it is the fashion may be depended upon to drop it at the first fashionable opportunity, perhaps with no loss to themselves, but certainly with none to the sport, for such defections amount only to a general weeding out of incompetents and malcontents, leaving the game, whatever it may be, in the hands of those who like it. "There is no accounting for tastes"—nor for lack of certain tastes; as to that, some men and women who are hearty and persistent at outdoor exercise are so satisfied with one or two sports that they take no interest in any other; the "all-around" enjoyer of athletic diversions is almost as hard to find as the ideal lady or gentleman.

Nevertheless no true sport is dead; if of them are very much alive and have "come to stay," no matter how wearying they may be to people who do not like them. Bicycling is almost as old as the present generation,

golf is far older, though Americans in general seem not to have heard of it till recently; football was played in China more than fifteen hundred years ago and in younger nations ever since they heard of it, and archery and horsemanship hark back to prehistoric man and are instinctive in millions. These sports cannot die or even be killed, nor can any others that are liked; they are as irrepressible and immortal as the human impulse to get out of doors and do something.

A. B. C. Stock Falls Away.

Following the annual meeting of the American Bicycle Co., its securities took a violent drop. The directors adjourned on Wednesday; on Thursday the preferred stock fell from 25 to 20, two hundred shares changing hands at the latter figure; common is stated to have been offered at 3 without attracting a bid.

Commenting on the drop, the New York Times says: "The decline reflected merely the momentary absence of buying orders rather than any heavy pressure on the stock. But, notwithstanding this explanation of the heavy loss suffered by the issue, a good deal of surprise was caused by the sudden drop. In a general way, it was expected that the showing made in the annual report of the company would serve to strengthen rather than to weaken the market for the company's stock, as the showing made was better than had recently been predicted. Some idea of the shrinkage which has occurred in these securities can be had when it is pointed out that at present quotations the \$40,000,000 capitalization of the company has a market value of less than \$10,000,000. This shrinkage is even more significant than it appears if it be remembered that the original plans of the promoters of the company were based on a bond and share issue of \$80,000,000, which more conservative interests caused to be reduced to the present amount. A director was quoted yesterday as stating that the business of the company promises to be more profitable during the coming year, and that dividends on the preferred stock will probably be begun within the next twelve months."

Remarkable Trade in Sundries.

James Bailey, of the big jobbing house of the James Bailey Co., Portland, Maine, is among the trade visitors in New York this week. He is attending the carriage builders' convention, but he has his bicycle eye open, and with an eye to the future is likewise taking a view of the automobile field.

Asked how the Bailey company had fared this season, Mr. Bailey, a smooth shaven, ruddy cheeked, alert, pleasant spoken, well groomed young man, replied:

"We have no cause whatever for complaint. We may not have sold quite as many wheels as the year before, but in dollars we did just as much business, while in sundries we had a really remarkable trade; it was far ahead of last year."

PACIFIC COAST PROSPECTS

Buyers Visiting the East Report a Good Year—All Seek Motorcycles.

Bicycle buyers from the Pacific Coast have been numerous in evidence in the East during the last few weeks. A. R. Maines, of the A. R. Maines Mfg. Co., Los Angeles, Cal., was one of the first to arrive; he was followed by A. C. Leonard, of Leonard & Bunt; Philip Lyon, of the Tufts-Lyon Arms Co., and Frank King, of Hawley, King & Co., all of Los Angeles. The San Francisco jobbing houses have been also well represented. E. E. Stoddard, of Dunham, Carrigan & Hayden, is one of the late arrivals.

With scarcely an exception all of the Californians are interested in automobiles and motorcycles, and are seeking to establish connections of the sort.

To a BICYCLING WORLD man Mr. Stoddard stated that he had found motorcycles to be too largely "in the air"; there were not enough people making them and not enough of the machines to be seen to make the situation satisfactory.

He believes there's no small future for motorcycles, however, and at about \$200 he thinks the motor bicycle in particular "will prove a seller out there"; "out there," of course, means the Pacific Coast. A visit to Buffalo to inspect a line of motorcycles was on his schedule.

Mr. Stoddard states that the present season has been quite satisfactory—possibly more wheels were sold than during 1899, while in the matter of sundries the business has been unusually good.

When it was remarked that the trade appeared to be looking to the Pacific Coast as the most promising field for 1901 and Mr. Stoddard's opinion was sought he was rather cautious and appeared to be reluctant to advance a prophecy.

"I believe we will have a good year," he said.

"Better than the present season?"

"Well, I think it possible that a few more wheels may be sold," he answered cautiously and with evident reserve.

Appeal Not Dismissed.

A decision was handed down last week at Rochester, N. Y., by the New York State Court of Appeals in the case of the Chainless Cycle Manufacturing Company, of Rochester, against the Security Insurance Company, of New Haven, referred to by THE BICYCLING WORLD last week. This action was brought in Monroe County to recover on a fire insurance policy held by the cycle company. A verdict of \$1,024.55 for the plaintiff was rendered in trial term. This was affirmed by the Appellate Division, and from there appealed to the Court of Appeals. The motion to dismiss this appeal was denied.

SUN HANGERS

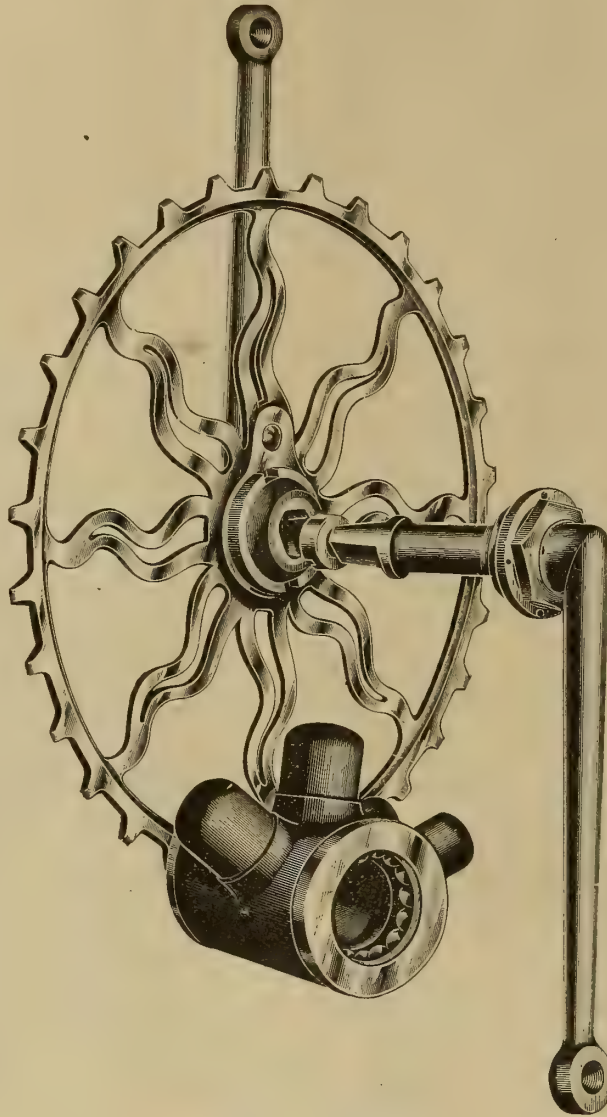
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Frame Connections

for One Inch, One Inch and Eighth, One Inch and Quarter Tubing. ❁ ❁ ❁

Buy your material in sets. No waste. You use all you pay for. Everything at one time. In perfect condition for easily and quickly making your frames. ❁ ❁ ❁ ❁ ❁ ❁



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Prices, terms and guarantee most liberal. ❁ ❁ ❁

You cannot afford to close without getting full information on my lines.

WRITE FOR PRICES TO=DAY.

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BRANDENBERG BROS. & WALLACE, Sole Sales Agents, U. S. and Canada, 119 Lake St., Chicago,—56 Reade St., N. Y.

CHAIN HISTORY

How the Block Succeeded the Roller Type —Will the Roller Return?

Has the last word been said about the chain, the limit of progress in this direction been reached?

Has it, as will be contended by many, come to a pass where the choice of but two courses is presented?

One is to discard the chain, cast it out root, stock and branch, substituting for it chainless gearing of some sort, whether it be of the bevel, roller or ball principle.

The other is to retain the chain as it exists to-day on the great majority of machines; to banish all thoughts of its improvement, of change of any kind; to declare, in fact, that it is good enough and that any desire for its betterment is an exhibition of fastidiousness that cannot be frowned on too severely.

The two horns of the dilemma are the only ones presented to the public by the trade. There is the chain, of the type made familiar by ten years' use; refined and improved during the first half of the decade, but left severely alone for almost the entire remainder. If you don't want this, say the makers, there is the chainless.

The latter is long past the experimental stage; it is best liked where best known, and while it rarely loses an advocate it is constantly, albeit more slowly than might be wished, gaining new ones. Its position is won, and it is only a question of time when it will have still further strengthened it at the expense of its rival, the chain.

But the field of the chainless is, at present at least, limited. There is a prejudice against it, in the first place, that tells against it; a prejudice engendered by jealousy, and still retaining much of its power now that the cause of the jealousy—the fact that it was launched and pushed by one firm—has almost entirely disappeared.

The chainless is a distinct type of bicycle, and no more to be ignored because of its origin than is the safety because it was originally termed the Rover, or the pneumatic tire because it once bore the name of Dunlop, or the diamond frame because it was made popular under the cognomen of Humber.

In the second place, the field of the chainless is still further limited by its greater cost and weight. Many riders who would overlook the former consideration balk at the second; and others who would pardon the extra two or three pounds are brought to a halt by the first consideration.

The shortcomings and drawbacks of the chainless—assumed to exist by its detractors or by those who have never tried it—constitute a third reason why it fails to come into more general use. That the chainless gears do not, when properly made, grind, bind, twist, run hard or do any other of the

many things charged against them does not prevent many from believing that they do. And it is slow work undeceiving them.

For these reasons the chainless door is closed to a vast army of riders. There is nothing left for them but the chain. There is not even a choice of evils. There is, to all intents and purposes, but one chain, and that the block chain.

It is an unprotected chain, too. That curious but universal "follow-my-leader" trait, so deeply ingrained in the mass of riders, lays down the dictum that chains must be bare, presumably because in that condition they can attract the most dust and mud and create more dissatisfaction.

Gear cases will not go. Why they will not or who is to blame—maker, seller or rider—is a matter quite without the province of this article. It is enough to record the fact that they are dead beyond hope of resurrection.



NEW YORK BRANCH: 214-216 WEST 47th ST
BOSTON BRANCH: 80 BATTERYMARCH ST.,
Near Fort Hill Square.

Riders are therefore confronted with but one dish, to wit, the chain, prepared in but one style, the block type, and used in but one way, without covering of any sort. Under the circumstances it would not be surprising if they became somewhat satiated with it and longed for a change.

But apparently they do not. At any rate, if they do they fail to make the fact known, so that it amounts to about the same thing. And, whether because of this supineness on the part of riders or out of regard to their own interests, the bulk of the trade harps on this one string forever.

The block chain unquestionably had many and decided advantages. Had it been otherwise it would never have ousted its predecessors as quickly and completely as it did. They fell away almost at the first onslaught.

It was this way: There were chains of all kinds—almost as many as there were different types of frames. A chain of some sort had to be fitted to every one of the new

type of bicycle, and as each maker had his own ideas on the subject of chains—as of everything else—the result may be imagined.

Of these numerous chains—most of them differing in unimportant particulars—only two had arrived at the dignity of having a name. They were the roller and the Humber patterns.

The former had much the greater vogue. Its great feature was that it ran just about as well when it was caked with mud or innocent of lubricant as when it was fresh from the hands of the repairer.

But, side by side with this wonderful merit, was found a defect equally pronounced. It never retained its pitch after the first twenty-five miles. It began to stretch upon its first trip, and kept it up right to the end of the chapter.

The Humber chain—now the block pattern—was the antipodes of the roller. It owed its unpopularity—in the trade—to the fact that it was a Humber production. Few cared to give that powerful firm any additional glory.

But the merits of their chain could not be gainsaid. As then made, with the old "figure 8" blocks, it was a world-beater. It fitted the sprocket wheel teeth perfectly, ran as smoothly as if encased in an oil bath, and made practically no noise. By comparison the roller chain was a coffee mill.

There was a fly in the ointment, however, and a very big one. All the praises the Humber chain got were showered upon it when it was well lubricated and free from dust and mud. Then it deserved all the good things said of it.

But when the conditions were reversed there was the very deuce to pay. Such grinding, growling and shrieking as was heard when the protesting, unwilling chain was forced over the sprocket wheel teeth! It was almost unbearable until one became used to it.

But the Humber chain won out, notwithstanding its bad behavior under such circumstances. It was undeniably superior to the roller under ordinary circumstances, and it was for ordinary occasions that most riders purchased their machines. The peculiar sweetness of the running was a revelation at that time, and to its fascination the riding world succumbed.

This was in the very early nineties. Since then the block chain, as it soon became known, has reigned supreme. Widths have decreased, weights have been reduced, workmanship and material have been improved, "figure 8" blocks have given way to "B-shaped" ones, but there the story of progress ends. And it ended some years ago, the difference between the chains of to-day and those of 1896 or 1897 being infinitesimal.

Briefly, this sums up the history of the chain in its relation to the bicycle. As to the questions asked in the beginning of this article, the BICYCLING WORLD man's opinion, based on an experience of several months with the twin-roller chain, is that they should be answered in the negative. The last word has not been said, finality has not been reached.

All that can be said in praise of the block chain is equally applicable to the twin roller, while the glaring defects of the former are conspicuous by their absence in the latter. Higher praise is not possible.

ENGLISH REPAIR PRICES

Figures That Should Bring Comfort to the American Repairman.

Uniform prices for repair work—once merely an iridescent dream—are not far from realization in this country, thanks to the work that has been done in the last two years. So beneficial have been the results that there is little doubt of the work being continued and carried to a logical conclusion.

On the other side, however, the old order still prevails. Each repairer charges whatever prices he sees fit or thinks he can get; fearful all the while—and frequently with good reason—that his competitors are cutting under him and getting his trade.

Of late, however, a glimmering of sense is to be seen. The question of uniform lists is being agitated, and dealers in different sections are taking the matter up and making public such partial lists as they may have compiled. One of these, which has been adopted by a district association, the Furness Cycle Traders' Association, is appended:

	s.	d.
New back hub and rebuilding wheel	17	6
New front	12	6
New rim and rebuilding wheel—Hollow, 15s.; Westwood, 11s.; solid, 7s.	6d.	
Stove enamelling rim, extra	1	6
New crown and forks fitted (stove enamelling 2s. extra)	15	0
Fitting fork sides—One, 5s.; two, 8s.	6d.	
(stove enamelling, extra)	2	0
New crown and stove enamelling	8	0
Humber pattern axle to bottom bracket	6	6
Coned bracket axle	7	6
Cotter pin and fitting	0	9
Plain cup and fitting—Back wheel, 2s.; front wheel, 1s.	6d.; bottom bracket	2 6
Screwed cup to bottom bracket	3	6
Time 1s. 3d. per hour extra for fitting cups to gear cased machines.		
Spokes (chain side extra), per spoke	0	9
Spokes (if drilled), per spoke	0	9
Extra spokes	(discretion)	
Fitting two tubes to frame, 17s. 6d.; separately	10	0
Plugging and brazing down tube	7	6
Cranks and fitting, each	3	0
Overhauling and adjusting, 2s. 6d.; taking out bearings and cleaning	5	0
New stem to steering column, from	6	6
Fixed back stays—Two, 10s.; one	6	0
Swinging back stays—Two, 7s.; one	4	0
Compression stays—Two, 12s. 6d.; one	7	6
(Enamelling extra.)		
Front wheel cones fitted, each	1	6
Spindle	1	6
Front wheel spindle and cones complete (from stock 3s.)	5	0
Back	6	0
STOVE ENAMELLING (Plain Black).		
Frame, 7s. 6d.; with wheels, 10s. 6d.; with gear case, 2s. extra; front forks, 2s.; mudguards	2	0

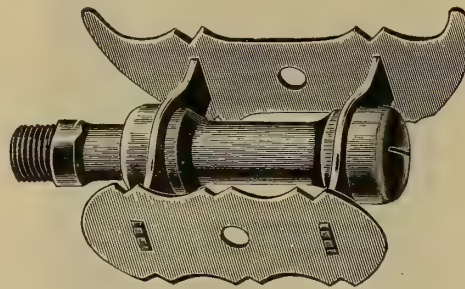
It will be noticed that these prices are, with a few exceptions, lower than those ruling in this country. The charge for rebuilding a wheel—this including the furnishing of the rim, spokes and nipples—is absurdly inadequate; in fact, it is only possible by the use of cheap labor, boys, for example, for a considerable portion of the work.

Yet this list is put forth as one that makes, all things considered, fair charges. It is contrasted with one previously published, showing figures much below those quoted. An extreme instance is given—the charge for enamelling and nickelling the complete machine. This was, in one case, \$10.50, excluding the hubs, for which an extra charge of \$2.50 was made. Yet in other cases this work was being done for the ridiculous sum of \$6.25.

It is small wonder that such charges call forth protests. Whether the agitation will result in any marked good being done remains to be seen.

Features of the Forsyth.

While the battle of price is raging fiercely in the pedal market, the Forsyth Manufact-



uring Company, of Buffalo, N. Y., have thrown themselves into the breach, and say that, while their figures will not lack interest, the design and quality of their pedals rise superior to price; they will deal only in the highest grades.

Of the Forsyth line, the racing pedal, shown herewith, is one of which its makers are particularly proud. Like all of their pedals, large balls is one of its features, but there are others, viz., the barrel is machine turned from the solid bar, not hardened; the ball cups are case hardened and then inserted; the pins and cones are made of special steel, case hardened, and the frame is so constructed that when toe clips are used all points of boot footplates engage the sole of the shoe the same as when toe clips are not used; the under side of the pedal has no horns or points projecting below the barrel, and can be used when toe clips are not required. This last feature is the result of a suggestion of Major Taylor, this year's champion, for whom the Forsyth people made pedals for his personal use.

Snyder Will Make Steam Carriages.

The H. P. Snyder Mfg. Co., the Little Falls, N. Y., bicycle makers, have added the manufacture of automobiles to their business. Their vehicle will be a steam carriage; the first one, it is stated, will be ready within a month.

HOW CHEAPNESS HURTS

Efforts to Pare Prices too Early Carry Mischief in Their Train.

To the public price is a prime factor in deciding whether a certain article shall be bought, no less than what particular pattern shall be chosen.

But price is not the only consideration. Of even greater importance are the matters of reliability, of durability, of feasibility. If cheapness is obtained at the expense of these no advantage whatever is gained.

Cheap bicycles were always wanted, and, in a greater or less degree, they were always to be had. But it was not until they became good as well as cheap that they attained a large sale and began to oust the high grades from the position they had so long occupied. As long as the great superiority claimed for the latter really existed buyers continued to prefer them in spite of their high price; when that superiority was wiped out the deluge came.

At the present time the same battle is being waged over motorcycles. The cry for cheapness goes up as of yore, and the prediction is made that it must come, and that very soon. But it requires little sagacity to see that good machines must come before cheap ones. Present machines must be improved—that is one horn of the dilemma. These improvements will cost money; that is the other horn. There is not much choice between the two, but such as it is it must be made.

Commenting on this phase of the matter an English writer says:

"Now, without any pretension to know all about motor cars or motor cycles, I do know this—that the cheaper brands now on the market are the ones that give most trouble.

"It does not need singular acumen to discover that cheapening the already too cheap cars is not the way to improve their quality. Having seen so many poverty stricken cars, with every symptom of cheeseparing in their construction, turn out such miserable failures, underpowered when doing their best, and seldom able to do even that puny best, owing to their suffering from habitual and chronic diseases, I naturally take the side of those who declare that more, not less, money should be spent on the construction of such things.

"I am quite content that some one else should test the hundred-guinea car. I rest content now for others to use cut priced chains, low grade tires, cheap saddles and gas pipe frames. I shall be quite content for some one else to report on the incidents that occur to the drivers of motor cars made on the cheapest lines, with financial economy, not mechanical efficiency, as the guiding line in design and construction.

"And I can quite believe that some one of an extremely expert character would have to be selected to drive such a vehicle. It would be quite unsuitable for the average man to handle, who was not a skilled fakir of disordered motors. The ideal reporter of such a car would be one that posed as an ignoramus on motor matters, but was secretly crammed full of expert lore which would be in constant requisition."

HELPS ON HILLS

Does the Coaster-Brake—Improves Style and Supplies Variety.

It has been noticed by riders of coaster-brake machines who are in the habit of keeping tab on their work that they have improved on their hill work, while on the level if there is any change at all it is for the worse.

Two theories can be advanced for the greater ease with which hills are climbed. One is that, owing to the rest obtained when coasting, the rider attacks hills with more spirit than formerly. Not having been obliged to keep his feet moving when no work was to be done, he is the more willing to put extra effort into his pedalling when up grades are encountered. Having coasted, it is only fair that he should turn to and work; and this he does with fresh zeal.

The second theory is an even more plausible one. It is that with a coaster-brake machine fairly clean pedalling is a virtual necessity. A rider may drag on the up stroke of the crank, and, if he is mounted on a fixed gear machine, be unconscious of the fact. The crank must rise, unless the machine comes to a standstill, even if extra pressure has to be put on the down-going pedal to counteract the weight carried on the opposing one. The more fatigued the rider becomes the more this fault becomes emphasized.

If the machine is fitted with a coaster-brake, however, this handicap is almost certain to be removed. Weight cannot be carried on the up-coming pedal without the rider being aware of the fact and bringing sufficient extra pressure to counterbalance it. Furthermore, he cannot get the cranks past the dead centre if there is weight on the up-pedal; even the impetus of the machine will not carry it over. Nothing but the re-

lease of the weight on one pedal and the clawing around of the other will avail to right matters in such case.

Consequently he soon learns to keep the weight off the rising pedal. He has no especial fondness for unnecessary work, and as he knows just when he is offending he soon begins to make a determined effort to stop it. This desire is heightened by the unpleasantness of the feeling experienced when the coaster has been thrown into operation unintentionally.

It follows almost necessarily, therefore, that a better style of pedalling is cultivated. Every stroke is made to tell, and this alone would result in an improvement in pace. Every effort of the rider is used in the propulsion of the machine, instead of, as formerly, being partly diverted to other uses. This is especially true where the work is hardest—on hills.

Better than any amount of theory, however—even when it is well supported, as in the present case—is the fact that many riders do find an improvement in their hill work. Where hilly rides were formerly dreaded and even shunned they are now welcomed. The truth of the old saying that there is never a hill to go up without there being a corresponding one to descend is borne upon the rider. While climbing one hill he reflects on the coast that awaits him when it has been surmounted, or else the hill just descended is held to be ample compensation for the work entailed.

It is only natural, therefore, that riding along the level should have a tendency to become monotonous. The rider longs for the exhilarating coast, even if it is prefaced by a sharp climb. One quite offsets the other.

It is a Business Bringer.

Charles Goerke, a Natick, Mass., dealer, has become a motocyclist, having just purchased a tricycle, which he is showing to present and prospective customers.

IMPROVEMENT IMPOSSIBLE

Essentials of Modern Bicycle Beyond Praise—Belief Deep-Rooted.

Deep down in their hearts almost every maker of and dealer in bicycles, as well as most riders, have a feeling that the machine of to-day is the bicycle par excellence—unapproached and unapproachable.

This feeling is shown in many ways. It comes to the surface at unexpected times and utterly without premeditation. Nothing but the deep seated conviction that it is a fact could explain this.

For example, in a recent conversation with a prominent manufacturer—one who had been identified with the industry almost from its inception—this feeling cropped out. The conversation touched upon bicycles only in a most indirect manner, and upon their being mentioned casually he interjected:

"The bicycle of to-day can't be improved. It has reached a stage where it is relatively perfect and where there is nothing to do but to leave it alone."

It took a long time for the bicycle to reach this stage, and no small amount of money. But, as far as the essential features are concerned, the remark is undeniably true. The frame, the forks, the wheels—they are, in the light of present knowledge, beyond improvement.

But they are not all of the bicycle. There are other directions in which change and improvement are possible, and the most fruitful laborers in this field will reap the greatest reward.

RARE CYCLE BOOKS FOR SALE.

Pratt: American Bicycler, 1880, with Appendix.
Sturmy: Bicyclists' Indispensable Hand-Book, 1881.
" Tricyclists' " " " 1884.
" Guide to Bicycling. " " " 1882.
Tricyclists' Vade Mecum " " " 1885.
(Very desirable books for patent departments.)
Dr. Stables: Health Upon Wheels, London " 1885.
Write to
FRIMAN KAHRS, 284 Pearl Street, NEW YORK.

DON'T LET ANYONE FOOL YOU

into believing that the

REED & CURTIS MACHINE SCREW CO.,

WORCESTER, MASS.

Are not "in it" on the pedal question.

If you are looking for the right goods at the right prices, try them and receive an eye-opener.

Recreation as Well as Vocation.

One of the favorite amusements of Coventry workmen is riding what are termed "roundabouts." These are machines carrying two passengers between each two wheels of a monster cycle. A saddle, handle bars and pair of pedals are provided for each rider, and one machine of the kind recently built had twelve wheels and carried twenty-four riders. The latter pay a penny—two cents American—for which sum they are permitted to ride a specified distance in the hall leased by the owner of the machine. A brake, termed a "trailer," is fitted to the machine; it is operated by a lever and claws the floor, effectually stopping the machine when time is up, notwithstanding the efforts of the riders to get a longer ride for their money.

What Should be Oiled!

That "fools rush in where angels fear to tread" is strikingly testified to by the sage advice tendered his readers by a reporter on a daily paper, to wit:

"The bottom brackets and nuts should be cleaned out with kerosene or gasolene and then oiled. The ribs should receive as much care as any other part."

Will go to Franklin.

The Grant Tool Company, of Cleveland, Ohio, which will succeed the Grant Ball Company, are building extensive works at Franklin, Penn., and will remove there upon their completion.

Another Non-Puncturable.

From Springfield, Mass., comes a new non-puncturable tire, which its inventors, E. C. Davis and W. F. Ellis, of that city, expect to place on the market on November 1.

It is described as being of the cushion-tire variety, and is made by fastening a rubber covering over a wood rim. The idea is to give resilience and at the same time durability. The wood rim is shaped very much like the regular rim of a bicycle wheel. The rubber, as prepared, is a broad sheet with the riding surface much thicker than usual, and curved in moulding to the proper shape.

When this rubber sheet is wrapped around the wood rim the edges of the thick part rest on the edges of the rim. The thin sides are then brought around and sewed tightly on the under side. This gives the tire an appearance of being made entirely of rubber. When the tire is put on a wheel there is an opening left in the rim to allow the whole to be sprung into place. A suitable wrench is then attached to a bolt connected with one end of a wire, and when the bolt is turned the break in the inner rim is closed so that the tire is held in position more securely than is possible with cement.

The tire is $1\frac{3}{8}$ inches in diameter and weighs about $3\frac{1}{4}$ pounds, but a pound more than the usual pneumatic tire. It is unusually resilient for a cushion tire, and it is claimed that there will be no cutting or wearing on the edges.

"Motocycles and How to Manage Them." The name explains the nature of the book. Price 75 cents. For sale by The Goodman Company. * * *

To Extract Broken Fragments.

While its value is very much lessened by the fact that the two metals most used by the bicycle trade—iron and steel—are excluded from its operations, a process invented by a Prussian, Bornhauser by name, is, nevertheless, interesting. It is a method of extracting the fragment of a drill, punch or other steel tool which has broken off while working any metal but iron or steel.

The object containing the broken-off piece is immersed in a boiling solution composed of one part commercial alum to four or five parts water. This solution may be held in a vessel of stoneware, porcelain, copper, etc., but not of iron. The object should be so placed that the gaseous bubbles that form as the alum attacks the metal are easily disengaged. At the end of a short time the fragment of the tool is entirely dissolved. A piece of a steel spring, .16 inch thick, was dissolved in a concentrated solution of alum in three-quarters of an hour.

Apparently Overlooked.

No attention whatever appears to have been paid to the tires used in the recent Catford coasting contest. Not only were no restrictions placed on special racing tires, but the subject itself is not commented on in reports of the contest. Yet it is apparent both that a change of tires would have made all the difference in the world to either the winner or one of the losers, and that some of the contestants were shrewd enough to see that they were not handicapped in this respect.



NOTICE.



The MECHANICAL FABRIC CO., of PROVIDENCE, R. I., beg to announce that they have disposed of their TIRE and TIRE SUNDRY business to the Hartford Rubber Works Co., of Hartford, Conn., to whom all orders for TIRES and INNER TUBES should be sent.

The MECHANICAL FABRIC CO., will conduct their other lines such as THREAD, CARD CLOTH, AIR GOODS, Etc., same as heretofore.

PREACHER'S PLEA

Urges Makers to Provide Longer Cranks— His Reasons and Recommendations.

While the long crank-high gear discussion has waxed warm in England all during the season, and a deal of healthy interest has thus been created, the subject has attracted small attention on this side.

Appreciating that it was logical that the higher the gear the longer should be the crank, the BICYCLING WORLD has been urging the American trade to interest itself, and thus create some needed and stimulating talk.

That the rider is ripe for something of the sort, the following from a Waltham (Mass.) clergyman, the Rev. W. H. Pulsford, addressed to a cycle manufacturer, goes far to show:

"Allow me to direct your attention to a matter which cannot have failed to come under your attention. I mean the question whether longer cranks are not a necessity if the average rider is to make the best use of his powers in bicycle riding.

"Experience is showing that the short crank, inherited from the necessity of the situation when we rode the tall wheel, is passing away. Seven years ago a well known firm of wheel makers laughed at my suggestion that I wanted a seven-inch crank. To-day firms of good standing are listing their wheels with seven-inch cranks only; In England, moreover, as those of us who follow cycling matters know, even the absurd ten and eleven inch crank is not unknown.

"How is the proper length to be determined? I find that the wise limit is reached whenever the rise of the knee becomes such as to grow muscularly disadvantageous. For a six-foot rider an eight inch crank, giving a rise of sixteen inches between the lowest and the highest point of the pedal, seems, after long experiment, to be the best. Below that proportion our lever is too short, and we have to move the feet fast through a narrower range than any to which the average man is accustomed; above it we use a knee bent too much to be able to get the best results at the top of the stroke—that is, the crank should be about one-ninth of the rider's height. Following that rule, short riders of, say, 5 feet 3 inches, should use seven-inch cranks; riders of average height, say 5 feet 7½ inches, 7½-inch cranks. As you will see, that means that cranks should be as a whole about an inch longer than you at present list them.

"Now, as to gear. It is clear that a man using 6½-inch cranks, who finds the best results with a gear of 65, will have to use no more pressure on the pedals to get the same speed if he uses a gear of 80 and 8-inch cranks. As a matter of fact, I get the best results with an 8-inch crank and a 112 gear, using exactly the same pedal pressure as with a 7-inch crank and 98 gear.

"But for the same speed I make fewer revolutions of the pedals, use a larger range of muscles, and, so to speak, walk with a slow, deliberate and longer stride. That, I claim, will commend itself to most riders. It is not the work that tires and taxes the wind, so much as having to do that work by a quick, unaccustomed motion. Most riders have strength enough if they are allowed to apply it deliberately, and in a manner more akin, for example, to going upstairs, where short, quick steps tire most of all.

"Might I add a word as to my own experience? I have been riding now for twenty years, and have ridden almost every form of wheel. Now, as a man over forty years old, riding 112 gear and 8-inch cranks, I can sit up and make fifteen miles an hour habitually and without effort, ride all rideable hills, and can double over and push myself a mile on decent level road in two and a half minutes. With a shorter crank that would be impossible for me. I could not push the gear, and with a lower gear one would have to move his feet faster than I, as an elderly amateur, can manage. Most of us have muscle enough, but we cannot sprint or run with short, quick steps. The long crank and high gear together fill the bill. Make the crank a ninth of the rider's height and the gear twelve to fourteen times the length of the crank.

"Moreover, let us remember that it is just as hard to push at 91 gear with a 6½-inch crank as it is to push 112 with an 8-inch. Only in the latter case you can take more time, move your feet in a larger circle, get in more deliberate ankle motion, save your wind and travel just as fast. Strangely enough, all this tells most where the average rider fears it will fail, on hills. The one secret of hill climbing is a long crank, a slow, deliberate stroke and a gear high enough to keep the wheel moving at a decent pace.

"All of which is submitted in the hope that next year you may at any rate give your riders an option of longer cranks.

"Those who laugh at 8-inch cranks now may soon be where those are now who laughed at sevens not so long ago."

Those who Scoffed Remain to Praise.

At this time, when ball retainers are practically in general use, it is interesting to recall the smiles and headshakes that they caused when they made their first public appearance, at the Cycle Show of 1896.

It was then that G. E. Strauss first introduced the Sartus retainer to the trade and public. The article was promptly remarked as one of the freaks of the show. The idea of separating the balls had never been considered, and was generally pooch-pooched; had Mr. Strauss not been a man of means it does not seem that he could or would have stuck to it in the face of the discouragement.

That he persevered and won a sweeping victory the trade has good reason to know, and at this time, when the purchase of stock for next season is in view, it is not inappropriate to remark the triumph of a good thing.

FLY WHEELS

Keep the Fixed Gear Machine in Coasting— —Wind Resistance.

Two ingenious theories have been put forth to account for the alleged inferiority of a coaster-brake machine to one with a fixed gear when it comes to coasting.

They are, first, that in the latter case the cranks and pedals play the part of miniature fly wheels, with the result of accelerating the progress of the machine; the second is that in coasting the legs, being motionless, offer more resistance to the wind than would be the case were they following the revolution of the cranks.

The first theory has undoubtedly more probability than will be at first admitted, and the wonder is that it has not been cited before. To prove this it is only necessary to take a machine, lift it off the ground and spin the cranks rapidly, the pedals being attached. Note the length of time it runs and then take the pedals off and try the experiment again. The difference—in favor of the first test, of course—will be surprising to those who have not tried it. *

The second theory—that the legs offer greater wind resistance when motionless than at other times—is also a sound one. This is evidenced by the fondness of the rear man on a pacing tandem to coast whenever he is permitted to do so; no less than by the strenuous objection of competitors, who cannot coast, to being thus placed at a disadvantage. They evidently think there is a great deal in the theory.

So much for the theories themselves. But is the original contention, viz., that a coaster-brake machine is necessarily or even usually slower when coasting than one with a fixed gear, supported by facts? The BICYCLING WORLD man's experience is that it is not; or, at the outside, that the difference is so slight as to be hardly noticeable.

In about the only formal coasting match in this country in which the two classes of machines were pitted against each other—one which took place in Boston last spring—the difference was found to be exceedingly slight. The fixed gear machine was victorious, but by such a small margin that quite one-half the credit could properly be given to the rider, while in a number of other cases the coaster-brake machine outcoasted its rivals having fixed gears.

This does not argue any marked superiority. Nor do numerous impromptu coasting matches witnessed and participated in point a different way. Why this should be so it is not difficult to see. Against the flywheel action of the fixed-gear machine may be placed the non-revolving chain of its rival, the latter being an almost equal advantage. As to the drawback of the motionless legs, the slight advantage usually possessed by fixed-gear machines should account for this.

The truth is that a well designed and constructed coaster-brake does not have to be apologized for on the score of bad running. It will take care of itself, even when coasting, and there is no use weakening its case strong as it is—by hunting up excuses for a failing that exists largely in the imagination.

The Retail Record.**CHANGES.**

Berkeley, R. I.—J. Noble will close.
 Hamilton, Ont.—Peter Bertram, sold out.
 Brooklyn, N. Y.—Driscoll & Herring, closed.

Salem, Mass.—F. E. Wing, closed for the winter.

Bellows Falls, Vt.—Lawrence Cannon, closed.

Chicago, Ill.—Weadley & Cleary, out of business.

Plain City, Ohio—E. M. McCullough, out of business.

Rutland, Vt.—George W. Williams, Center street, closed.

Akron, N. Y.—Stimson & Brackett, closed for the season.

Fall River, Mass.—Frank Marsh succeeds Howarth & Marsh.

Hartford, Conn.—A. Munson, succeeds Munson & Nearing.

Sisterville, W. Va.—J. A. Turner, has bought out S. G. Kline.

Sandy Hill, N. Y.—Laraway & Hibbard, removed to Bakers Falls.

Riegelsville, Pa.—Emanuel Druckenmiller, removed to Airie street.

Brewster, Me.—Bangor Bicycle Co., branch in Odd Fellows Hall, closed.

Baltimore, Md.—John T. Shannon Company (not incorporated), dissolved.

Millville, N. J.—E. L. Thomas, Sassafras street, undergoing repairs and alterations.

Marengo, Ia.—Charles L. Holden has purchased the business of Simpson & Rowland.

Chicopee Falls, Mass.—Chicopee Falls Wheel Company removed to Exchange street.

Wakefield, Mass.—Hughes & Dinan, purchased business of C. A. Cheney and removed to Avon and Main streets.

MORTGAGES, ETC.

Pontiac, Mich.—Gustave Beame, bill of sale for \$400.

Richmond, Ind.—Moore & Brown, chattel mortgage for \$450.

Binghamton, N. Y.—J. Walter Ash, chattel mortgage for \$350.

Jacksonville, Fla.—Florida Cycle Company, suit for \$1,000.

New Haven, Conn.—A. C. Benham, real estate mortgage for \$999.

Hyde Park, Mass.—Chas. T. Griffiths et al., real estate mortgage for \$2,800.

Kansas City, Mo.—Eureka Cycle Company, mechanics' lien, \$100, versus F. L. Flanders, individually.

FIRES.

Iona, Mich.—A. P. Crell & Co., loss \$1,200; fully insured.

Hartford, Conn.—T. I. Peer, damage by fire and water.

EMBARRASSMENTS.

Oshkosh, Wis.—E. W. Thurston, execution, \$104.

Hagerstown Dealer Out.

At Hagerstown, Md., last week, the stock of Daniel D. Strite, North Jonathan street, was sold at auction, at the instance of Wm. P. Lane, mortgagee.

Johnson's Move Justified.

The black boy on the blue wheel with the red head has justified the confidence of his employers, which is to say that Major Taylor has won the American championship for 1901 on an Iver Johnson bicycle, made by the Iver Johnson Arms and Cycle Works, whose plunge into the racing game was one of the surprises of the year. Taylor won the honor by a more than comfortable margin; he scored twice as many points as his nearest competitor.

Insurance Adjusted and Will Re-open.

Musselman Bros., of Wichita, Kan., whose stock of bicycles and general sporting goods was partly destroyed by fire recently, will open again next week. The loss was entirely covered by insurance, and the matter was adjusted satisfactorily to both firm and insurance company. The stock was insured at \$5,000. Over one-half of the goods were destroyed, and much of the rest was damaged.

Knowles Gets the Kokomo.

C. S. Knowles, No. 7 Arch street, Boston, who has been known to the trade in a small way, is destined to become better known. He has just secured the New England agency for the Kokomo Rubber Company, a fact that assures the widening of his acquaintance, as the Kokomo people have an attractive article and proposition in the matter of tires.

Recent Incorporations.

Providence, R. I.—Emory Tire Company, with \$100,000 capital, to manufacture bicycle and vehicle tires. Incorporators: Orville L. Leach, Charles H. Waite, Archibald Martin and John C. Rohwer.

Franklin, Penn.—Grant Tool Company, with \$600,000 capital; incorporators, J. J. Grant, of Cleveland, Ohio, and C. Miller, W. J. Bleakley and W. H. Forbes, all of Franklin.

Separates His Interests.

E. H. Crippen, who has conducted both a retail and jobbing establishment at Los Angeles, Cal., under the title Avery Cyclery, has separated the two interests. The cyclery will continue to sell at retail, but the jobbing department will be hereafter carried on as the E. H. Crippen Cycle and Supply House at a new address, 439-441 South Main street.

Price Not Made Public.

It is announced that the negotiations for the purchase of the Thompsonville (Conn.) plant of the American Bicycle Company, formerly operated by the Lozier Manufacturing Company, by the Goodson Graphotype Company, have been concluded and the transfer made. The price has not been divulged.

Another Motor Coming.

Marion Black, of Fort Wayne, Ind., is experimenting with a new gasoline motor for use on a bicycle, and has it nearly completed.

The Week's Patents.

659,235—Bicycle Gearing Case. Thomas B. Jeffery, Chicago, Ill. Filed Feb. 23, 1898. Serial No. 671,253. (No model.)

659,267 — Toy Velocipede. Ellsworth Thompson and Amos E. Evans, Golden, Ill. Filed May 10, 1899. Serial No. 716,319. (No model.)

659,321 — Velocipede. James Preston, Tuckahoe, N. Y. Filed Nov. 14, 1899. Serial No. 640,951. (No model.)

659,323—Cycle Saddle. William S. Richmond, London, England. Filed June 12, 1897. Serial No. 640,587. (No model.)

659,439—Bicycle Lock. Frank J. Errick, North Tonawanda, and Frank X. Batt, Tonawanda, N. Y. Filed April 2, 1900. Serial No. 11,197. (No model.)

659,504—Driving Gear for Velocipedes. Charles A. Baylor, La Porte, Ind. Filed April 17, 1899. Serial No. 713,2393. (No model.)

659,462—Ball Bearing. Hubbard F. Weeks, Freehold, N. J., assignor of two-thirds to Rulief P. Smock and Frank C. Du Bois, same place. Filed June 12, 1900. Serial No. 20,042. (No model.)

659,511—Two Speed Gearing for Velocipedes. Alexis Didierjean, St. Quentin, France. Filed May 23, 1898. Serial No. 681,496. (No model.)

659,557—Pneumatic Tire for Vehicles. Uzziel P. Smith, Chicago, Ill., assignor of one-half to Thomas Kane, same place. Filed Jan. 24, 1900. Serial No. 2,639. (No model.)

659,560—Ice Cycle. Dietrich W. Tietjen, Milwaukee, Wis. Filed Dec. 4, 1899. Serial No. 739,142. (No model.)

659,595—Bicycle. Joseph P. Schooler, Colorado, Tex. Filed March 28, 1896. Serial No. 585,233. (No model.)

Travels of an Historic Book.

The copy of Pratt's "American Bicyclist" which Friman Kahrs, of this city, in another column, includes in his offer of several rare cycling publications, is a much travelled and historical volume. When it was purchased in 1881 Mr. Kahrs was a resident of Bergen, Norway. He was on a business trip to Hamburg, Germany, and there saw and purchased what is believed to be one of the first two American bicycles, Columbias, ever exported. Mr. Kahrs bought Pratt's book at the same time, and with its aid organized in Bergen one of the first bicycle clubs in Europe. When he came to this country to live Kahrs brought the book with him, but as he is now out of cycling he is offering it for sale, together with some other works of the early days.

Both Suits Were Dismissed.

At Hartford, Conn., on Monday, in the United States Circuit Court, the patent suits of the National Needle Company against the American Specialty Company and others, and the Excelsior Needle Company against the American Specialty Company and others, were dismissed with costs to the defendants, upon the motion of the attorneys for the complainants.

What's the Time.

A booklet with this title, just published by the Chicago, Milwaukee and St. Paul Railway, should not only be in the hands of every traveller, but should have a place on the desk of every banker, merchant or other business man.

The four "Time Standards" which govern our entire time system, and which are more or less familiar to most of the travelling public, but by many others little understood, are so fully explained and illustrated by a series of charts, diagrams and tables that any one who chooses can become conversant with the subject in question. There are also some twenty-four tables by which almost at a glance, the time at any place being given, the hour and day can be ascertained in all the principal cities of the world.

A copy of this pamphlet may be had on application to Geo. H. Heafford, General Passenger Agent, Chicago, inclosing two-cent stamp to pay postage. ***

Official Repairers.

Across the water a very good move has been made by the De Dion-Bouton Co. This is no less than the selection of a corps of official repairers, and no less than 60 applications for the positions have already been made to the big motorcycle firm.

When completed the list will be an exceedingly valuable one. It will be a great relief to motocyclists to know just where to go in case of any mishap to their machines, and the feeling of security engendered by the knowledge that good work and reasonable charges will result will undoubtedly be worth a great deal. Already there are too many repairers whose inexperience is only equalled by their assurance in making extortionate charges.

It is to be hoped that a similar list will some day be compiled in this country.

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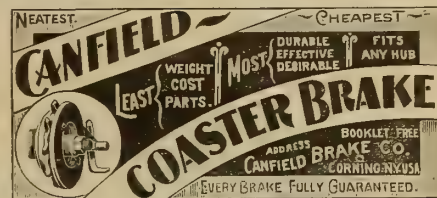
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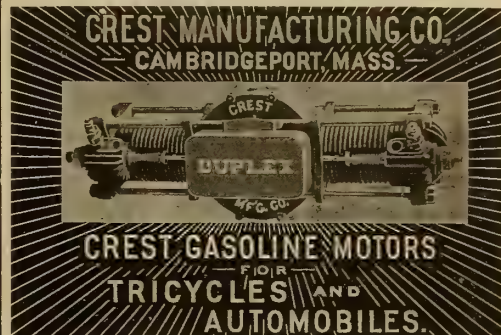
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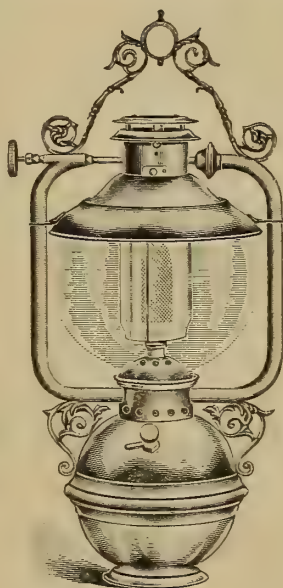
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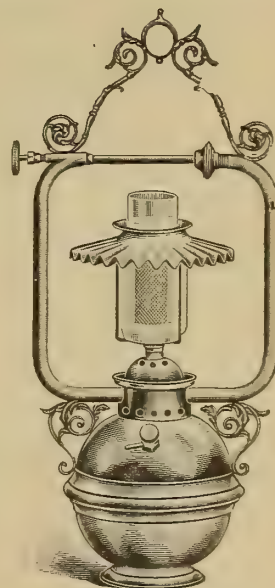
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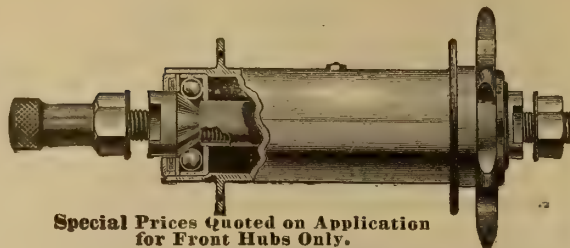


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Lv. Boston	10.45 A.M.	2.00 P.M.
Due Albany	4.10 P.M.	7.35 "
" Syracuse	7.55 "	11.40 "
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" Buffalo	11.40 "	
" Toledo	5.55 A.M.	
" Detroit		8.15 "
" Chicago	11.50 "	4.00 P.M.

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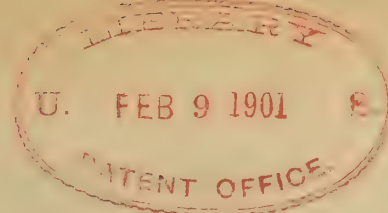
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The Bicycling World

ANL MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., October 25, 1900.

No. 4.

NEXT YEAR'S PRICES

First Showing of A. B. C. Figures and Intentions—Light Wheels Featured.

For the past several years the once familiar question, "What price for next year?" has lost much of its point and substance. Each maker has not been so much concerned with his neighbor's figures as was formerly the case, and has set his own price in his own way and largely at his own pleasure.

The formation of the American Bicycle Co., however, divided the trade into two camps, trust and anti-trust, and the result is a keen renewal of interest in the once paramount question as to the next season's prices. Little or nothing bearing on the matter has escaped, and the interest has, perforce, remained unsatisfied.

The first satisfactory information reached the BICYCLING WORLD late last week; it gives only the prices and some particulars of the Rambler line for the year 1901, but it is safe to accept them as a key to the A. B. C. situation.

As now arranged the Rambler line and prices will be as follows:

Men's Chainless, No. 38, weight 29 lbs., \$60.

Ladies' Chainless, No. 39, weight 30 lbs., \$60.

Racer (Chain Wheel), No. 40, Hartford racing tires, weight 19 lbs., \$50.

Light Roadster, 1½ tires, Men's No. 41, weight 22½ lbs., \$40.

Light Roadster, 1¾ tires, Ladies' No. 42, weight 24 lbs., \$40.

Roadster, 1½ tires, Men's No. 43, this year's No. 32, \$35.

Roadster, 1½ tires, Ladies' No. 44, this year's No. 34, \$35.

Combination Tandem, No. 45, \$65.

Men's Tandem, single steering, No. 46, \$65.

During the present year all Ramblers were listed at \$40; the same wheel, as stated, will next year appear as the roadster, price \$35.

Aside from the fact that a chainless at \$60 will take its place for the first time in the Rambler line, the appearance of a racer and a light roadster at \$50 and \$40, respectively, is fraught with the most serious suggestion. It clearly indicates that, while reducing the price and perhaps changing the

nameplates on this year left-over stock, of which there is considerable, the A. B. C. will make their effort and their money on light wheels—that a reduction of weights is one of the cardinal aims.

Sherman Buys Manson Stock and Name.

Chicago, Oct. 23.—The Sherman Cycle Company this afternoon closed a deal whereby they acquire the stock, material on hand, trademarks and goodwill of the bankrupt Manson Cycle Company. The Sherman people will continue the manufacture of Manson bicycles in conjunction with the Sherman.

Underwood Goes Under.

In the nature of a surprise is the announcement of the failure of Charles A. Underwood, of Jamaica Plains, a suburb of Boston, Mass. The liabilities are placed at \$1,127, with \$564 assets. Underwood was one of the oldest dealers in that vicinity, and was understood to have had a prosperous season.

Petitioned into Bankruptcy.

Judge Baker, of the United States Court at Indianapolis, Ind., has been petitioned by the H. T. Hearsey Bicycle Company, the Snider Cycle Company and Frank Baldwin, all of that city, and several firms in nearby States, to declare John G. Otstott, of Muncie, a bankrupt.

A. B. C. Managers in Conference.

The managers of the various A. B. C. sales departments are in New York this week for the annual conference. Their sessions will last during the greater part of the week, but as yet no inkling of their transactions has been permitted to escape.

Bevel-Geared Dayton in Sight.

One of the surprises of the forthcoming season will be a Dayton chainless bicycle—a bevel gear. Beyond admitting the fact, however, the Davis Sewing Machine Company will say nothing about the new wheel.

Will Distribute on the Coast.

The Hartford Rubber Works Company have opened a branch at No. 52 First street, San Francisco, Cal., with M. J. Tansey in charge. It will be made the distributing point for Hartford tires on the Pacific coast.

TIRE AGREEMENT REACHED

Papers to be Signed This Week—Some Details of the Deal.

As a result of their three days session at the Waldorf-Astoria in this city last week it can be stated that the tire manufacturers finally reached an agreement, as was expected would be the case.

As all parties to it are pledged to secrecy the exact terms of the agreement cannot be learned at this time, nor is it likely that they will be made public until the compact is signed, sealed and delivered in legal form; this is expected to take place at a conference which will occur in this city to-day or to-morrow.

While details are not possible it can be stated with every assurance of its correctness that what has been agreed on is this:

1. A reduction of the minimum price on unguaranteed tires—the cause of all the trouble.
2. An arrangement or rearrangement of a schedule of price to the bicycle manufacturer, jobber and dealer respectively, and
3. That the Hartford Rubber Works shall withdraw from the unguaranteed tire market, and, as formerly, confine itself to guaranteed goods—this last probably being the most sensational outcome of the many and protracted conferences.

Will Hunt for Cole.

Charles E. Hunt, for a number of years buyer and manager of the bicycle sundry business of Horace Partridge & Co., and the past season representing the Boston Cycle Company, will enter the employ of the G. W. Cole Company, of No. 141 Broadway, New York City, on November 1. Mr. Hunt will manage the New England business of this well known house, with headquarters in Boston.

Fleming in New Quarters.

The Fleming Manufacturing Company, manufacturers of the Fleming hydrocarbon motor, have removed from No. 90-92 Pearl street, Brooklyn, to Nos. 93-97 Elizabeth street, New York, a change made necessary by their rapidly increasing business.

CHUTE ON CUSHION FRAMES

Their Chief Sponsor Talks of Their Achievements and Future.

No matter how long a lane may be it is almost certain to have a turning; and when that point is reached, after a very long journey, it is not amiss to indulge in a little felicitation.

This is, undoubtedly, the view taken by the Hygienic Wheel Co. Their pneumatic cushion frame is no longer merely a mechanical success, a device that deserves popularity and will some day achieve it; it has passed from the land of Ought-to-be into that of Is; and the air of the latter place agrees with it and causes it to thrive amazingly.

In short, the cushion frame has become a full blown commercial success and is welcomed and sought after where it was formerly looked upon askance.

Bent on supplementing the well known facts regarding the present prosperity of the Hygienic Co. with information of a more specific character, THE BICYCLING WORLD man journeyed to the St. Paul Building last week with his mind in a receptive mood. The visit was rightly timed, as Vice-President Chute had just returned from a Western trip that had been productive of some nice fat orders.

"We certainly have no cause to complain of the business we are getting," he said, "as contracts just closed with three concerns will show. They were the National Cycle Manufacturing Co., Bay City Mich.; the Dayton Sewing Machine Co., Dayton, O., and the Miami Cycle and Manufacturing Co., Middletown, O.; and orders were taken from them aggregating a good many thousand dollars. This would seem to imply considerable confidence in the cushion frame, else these concerns would not order so freely.

"If we had known at the beginning what an expenditure of time and money it was going to take to make the cushion frame go," continued the speaker reminiscently, "I doubt very much if we would ever have touched it. It is all right now, the tide having turned quite a while ago, and we are now due to get some return for our outlay. But it was a long and a hard struggle, and the prejudice engendered by so-called 'spring frames' had to be lived down before we could make any headway. In fact, we could have done much better had there never been a spring frame.

"Taking our outlay for patents in this and other countries—for the first thing I did when we took hold of the device was to see that it was fully protected—and that for 'missionary work' in the past half dozen years, we have put not far from \$60,000 into the cushion frame. There were times, it must be admitted, when the outlook for recouping ourselves was not very bright. There was the prejudice against cushioning devices of

any kind to live down. Then the plan of selling a few of the devices to any manufacturer who expected them to sell themselves proved to be a mistake and hurt us a great deal.

"There is one thing to be said most emphatically, and that is that no one can sell cushion frame bicycles—or any other article out of the ordinary—unless he believes in them. We learned this through bitter experience and at great cost. But the lesson once learned was taken to heart.

"Our policy now is not only not to encourage this class of trade, but to refuse absolutely to sell to it. We don't want and won't have any customer who won't show his interest in the cushion frame by giving a good round order for the parts. If he is not willing to risk enough money to give the cushion frame a fair trial we won't sell him our goods. We want them pushed, and pushed intelligently and with confidence, and until we are satisfied that a prospective customer has faith in the device we have little desire to do business with him.

"This plan has amply justified itself. A firm has to push our goods vigorously or it can't sell them. Once they start in to advocate them they become infected with the enthusiasm, and the rest follows as a matter of course. Every machine sold makes other converts, and there is a constantly widening circle of sales that causes everybody concerned to feel good.

"Why, we are constantly being told that the cushion frame will revolutionize cycling. Here is a letter from a prominent Toledo dealer that is a good specimen. He writes that the cushion frame enables him to regain old customers who had given up cycling on the ground that it no longer possessed novelty or other attraction sufficient to hold them.

"When I saw this dealer a few weeks ago he related to me some instances of this kind. One case was that of a well known business man who had given up riding a year or two ago, although he had previously been a regular customer, purchasing a new machine every year. So confident was the dealer—it was J. G. Swindeman—that he had just what the gentleman wanted that he wrote him asking him to stop at the store.

"This he did, although somewhat surprised that he should be sent for. When told that he was expected to try a new bicycle he pooh-poohed the idea, saying disdainfully that he was through with that. However, by dint of much coaxing he was induced to take the machine and give it a trial. He did not return for half an hour or more, and then he was a changed man. The first question he asked was whether the machine was for sale; and when told that he could buy a new one just like it he left directions to have it sent to his house. The next day his business partner came down and ordered a duplicate machine.

"These are typical instances of the effect of the cushion frame on dealers and riders. Once they give the machine fitted with the device a trial they become enthused over it. It is the same way with manufacturers. The

harder they push it the better they like it and the greater their sales become.

"A good example of this is to be found in George N. Pierce & Co. They became converted to the cushion frame some time ago, and they pushed it harder and harder. Consequently they have created a demand for it from all sides, and their sales of the cheaper models have steadily dwindled. They get better prices for the cushion frames, of course, and they have less competition to fight against. Therefore, they are very well pleased with the outcome.

"While we don't pose as philanthropists entirely," concluded Chute with a twinkle in his eye, "and are looking out for our own interests as well, we have a proposition that cannot but appeal to the trade if it is given the consideration it merits. We sell the parts to make the cushion frame or grant shop rights, as preferred; the latter being the usual course where any considerable number of machines is likely to be turned out. Then we have a minimum price at which machines fitted with our device can be sold, and a maximum discount that can be given dealers.

"Thus we guard effectually against price cutting and make it reasonably certain that it will pay both maker and dealer to sell cushion frames.

"I am very glad to be able to say that our policy appears to commend itself to the trade; while the public at last seems to be able to judge between the spring frames that made the term odious years ago and a vibration absorber like ours which does its work without wasting the power that the rider needs to propel his machine."

Merrill on Pacific Coast Trade.

Fred T. Merrill, the well known Portland (Ore.) dealer and jobber, is in New York this week. The stereotyped "How's business?" was, of course, put to him.

"We didn't sell as many wheels as last year," he said in reply, "but we made more money. We had a wonderful trade in sundries—\$40,000 worth."

"Then you are not troubled by price cutters?"

"No; nor by department stores, either; none of them sells bicycles. That's one reason why Portland is the greatest high grade city in the country. Of 18,000 bicycles there, I think I am safe in saying that 90 per cent are high grades."

"Next year? I think it will be better than this season. We've made a start on bettering our streets, and we'll have light wheels to sell. I think I'll be able to sell twenty-five or thirty automobiles, too.

"Motocycles? Yes, we want them and can sell them."

"What type will sell best?"

"The motor bicycle, undoubtedly; in fact, we'll have to have a single track machine for our roads. Why, I believe when the motor bicycle is perfected and the price is brought down to, say, \$100 or \$125, it will revolutionize cycling."

Rochester Veteran Makes Public a Promising Development of Great Adaptability.

When J. Harry Sager, of Rochester, N. Y., was in New York last week, showing his motor bicycle to a select few, he remarked:

"Heretofore it seems to have been the idea to build a motor into a bicycle. In my machine I have taken a motor and built a bicycle around it—the correct idea, to my way of thinking."



In speaking of the machine last week the BICYCLING WORLD referred to it as a distinct development in frame construction

The regular Regas frame, as shown, is to be equipped with a one and a quarter horse power motor, lightening the weight considerably over the first machine built. When complete it will not weigh over seventy-five pounds. With a one and a quarter horse power motor the speed will be on an average of twenty miles an hour, which is deemed fast enough for ordinary purposes, for Sager, wise man that he is, believes that the high power machines will serve to prejudice the public unfavorably.

The machine may be propelled at the will of the rider by motor or by the pedals, or

both simultaneously. The rider can begin or cease to pedal without interfering with the action of the motor. It will climb most all



and general design, an observation which the accompanying illustration will bear out.

Mr. Sager's company, the Regas Vehicle Company, of Rochester, has begun the exploitation of the bicycle which cannot fail of general attention; the lines of the frame, the long wheel base, the location of the motor, the driving of it, the ease with which the motor can be disconnected or entirely removed, if desired, and the bicycle be propelled by pedal power alone, all make for general interest.

grades without pedaling, and with a slight assistance from the pedals no hill is too steep, it is claimed. On down grades, or coasting over level roads, the speed is controlled at the will of the operator.

"It can be guided anywhere," says the inventor, "and under all conditions, with perfect safety. It is steady in steering, owing to the motor being low down, like ballast to a boat. It can be ridden 'hands off' more easily than the ordinary wheel. An average run of seventy-five miles can be made without

the replenishing of the gasoline supply, which may be replenished at any country store. No water is required to keep the cylinder of the motor cool, and the life of the dry battery is that of a year. In case of accident to the motive power, the engine can be disconnected and the vehicle pedalled home or to the nearest repair shop, with less exertion than the old cushion tire bicycle."

The motor being supported at both bottom and top, and the weight being placed at the most advantageous point, affords protection from accident. Moreover, it is so constructed than any suitable motor can be used, and one of the most valuable features is that this same frame can be used in a tricycle or quadricycle, or in tandem form. Where two wheels are used behind, the differential gear is placed between the forks, instead of between the rear wheels. It drives with a chain, thus dispensing with the noise of the cut gears used in the ordinary motor tricycles and quadricycles; but the Regas bicycle, with its front wheel removed, has been hitched behind the two wheeled front seat attachment of the quadricycle, and in this form it makes a tricycle carrying two people, driving with a single rear wheel. This dispenses entirely with the differential gears, spur gears, extra wheel, great weight and all. By detaching the front seat attachment the problem of storing a tricycle in a hallway or getting it through the average doorway is also solved.

With the aid of the Regas cycle frame, on which some patents have been allowed and others that are pending, any bicycle manufacturers, say the Regas people, can immediately enter upon the manufacture of motorcycles at a very little expense, and make a complete line of motor bicycles, tandems, tricycles (either two wheels in front or two wheels behind, carrying one or two passengers) or quadricycles, all using the identical frame and all chain driven.

In the Regas all the parts are stock parts, with the exception of crank hanger, rear hub and rear fork ends. The Regas Vehicle Company are ready to negotiate with bicycle manufacturers to make the Regas on royalty, or will furnish the trade the parts complete or any portion of them.

The complete bicycle, as illustrated, with Fred Sager "up," has been in use in Rochester for a year or more, and Sager—J. Harry—states that it has gone through "rain and snow and every kind of weather" in grand style. It does not embody some of the more recent refinements, but as it is it has done a mile in 1:56, and neither heat nor cold nor vibration nor (with the Bailey stud tread tire, which he uses and praises highly) side slip has affected the machine.

Left Creditors in Lurch.

John F. Dupont, a New Haven, Conn., dealer, has departed for parts unknown and the sheriff has taken possession of his store. Only about \$50 worth of goods were left behind.



**ORIENT
MOTOR
BICYCLE**



**ORIENT
MOTOR
TANDEMS**



**ORIENT
THREE
WHEEL
AUTOGO**



AT THE BIG

SHOW

LOOK FOR THE

ORIENT LINE

The Orient line of motor vehicles at the Automobile Show in New York is to be different from all other exhibits, for the reason that it will appeal to the masses as well as the classes.

Thousands of people are on the automobile fence, so to speak. Immediately after this show, which affords the purchaser a chance to note, compare and test the various models and motive powers, hundreds are coming to a decision.

Be thou ready before the event. A little powder from us will prepare you.

Have you decided to test your trade with the Tailored Orient this winter? Samples on exhibition at hotel in New York during the Automobile Show.

WALTHAM MFG. CO.,

WALTHAM, MASS.



**ORIENT
FOUR
WHEEL
AUTOGO**



**ORIENT
RUN-
A-
BOUT**



**ORIENT
VICTOR-
IETTE**



Fisk Tires

Tires,

like stocks are easily inflated, and quite subject to puncture if not backed by good value.

Therefore,

in buying tires, as in stocks, be sure you get something with a reputation behind it.

Fisk Tires

are known wherever wheels are used as the highest grade.

FISK RUBBER COMPANY. Chicopee Falls, Mass.



HAWKINS

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THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

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To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, OCTOBER 25, 1900.

Bearing on Next Year.

On Sunday last the roads around New York bore witness that there's lots of life in cycling yet.

It was the first clear Sunday of the month, and the glorious weather brought out the wheelmen and wheelwomen in droves; the roads fairly swarmed with them, and the appearance and character of the riders gave the lie to the oft repeated assertion that the so-called "better classes" had abandoned cycling.

As showing a tendency of the times, it was observable that while the roads into the country were well peopled with cyclists, the asphalted avenues and boulevards and former lounging places were almost deserted.

It suggested strongly that the "butterflies" are all out of cycling: that those who now ride, ride for the pleasure it affords, and who find that pleasure not on asphalted streets, but out in country free and wide.

Sunday's outpouring was that of the most populous district in the country, and as such it is fair to assume that it was but a mag-

nified reflection of the cycling conditions that exist elsewhere.

Accepting this view as reasonable and correct, it was a demonstration such as should strengthen the fibres of the weak kneed, of the treat and give the faint hearted new hope and new inspiration.

It was a demonstration calculated to drive away the clouds and let the sun light up and warm the season that is just beyond the snows that are ahead.

If you Doubt, Ask.

Where doubts exist as to the future of the motor bicycle let the doubter ask himself this question:

What do you think of a bicycle that runs without pedalling or that can be pedalled if so desired; that levels the hills; that causes the headwinds to be welcomed, instead of dreaded, and that may be converted into a tricycle for two, when the owner so elects?

Let the question be asked without whereases or argument, and if the doubter still doubts, let him put the question to his friends, his enemies or his chance acquaintances.

If their answers do not remove all skepticism, we miss our guess badly.

Overstocks, Price Cuts and Organization.

It seems rather late in the day of bicycles to talk of organization in the cycle trade, but for all of that there was never a time when local or neighborhood organization could serve better purposes or more of them.

In the past there have been so many dealers and so many of them of the "wildcat" order, that little real good could be accomplished; the "wildcats" had such small regard for an organization that the objects of organization rarely attained their end.

In the weeding out process of the last two years, however, the "wildcats" have suffered; they threw legitimate profits and legitimate methods to the wind in the days of better profits, and they fell with the profits. Only the fittest of the retail trade now survive or will survive the winter.

If these "fittest" will but get together their respective ways will be made easier and their net profits larger.

In the BICYCLING WORLD President Kehew, of the Boston Cycle Jobbers' Association, recently gave an illustration of the manner in which the jobbers there work together for the common welfare.

The process is simplicity itself, and cannot but serve the entire industry.

Overproduction is after all the bane of all manufacturing industries; overstock that of the retail trades.

If there is neither overproduction nor overstock the industry concerned is happy indeed; then there exists no reason why either maker or dealer should cut a price.

Of course, this condition is rare, but trade organization can do much that will contribute to it.

As Mr. Kehew said, price cutting does not stimulate business a particle.

A particular neighborhood will absorb a certain amount of merchandise, no more. If prices are not cut, each dealer will receive his share.

If prices are cut the price cutter does not increase the demand; he merely increases his own trade for the moment at the expense of his fellows, and reduces his profits and often theirs.

Unless price cutting is his slogan, no merchant cuts a price unless he is overstocked; when he cuts the cut is expected to move the goods.

If the danger of overstock is removed or minimized, or a natural outlet found, the danger of a demoralizing cut in prices is removed.

Mr. Kehew has testified as to the efficacy of the "Boston plan," which is after all only the plan of common reason and mutual good will and trade decency.

Briefly, the idea is this: If a dealer finds himself "long" of an article—that is, overstocked—he goes to his fellows, and if they are short of it he sells to them at cost instead of cutting or shading prices to move the goods. If he is short of an article, instead of ordering from the factory he goes to his local competitors, who sell to him at cost.

Working on these lines stocks are kept within safe bounds and the carrying over of old goods or cut price clearance sales are obviated, or at least reduced to a minimum.

If the plan were carried to its legitimate conclusion, and all, or nearly all, the dealers were overstocked, a joint clearing sale, either individually or through a central source, could be easily arranged by mutual consent and without hurt to the trade as a whole, as is the case where cuts are made without warning or by but one house.

It may be argued that makers would not relish such a state of affairs; that they would prefer that each dealer order of them as necessity arises.

But we put small faith in such argument.

Price cutting is the logical outcome of overstock.

Price cutting hurts the manufacturer if it hurts any one.

Anything that minimizes the danger of overstocks minimizes price cutting, and as price cutting affects the health of the retail trade, as it hurts the manufacturer, any process that acts as a check on or a legitimate clearance of overstocks should be welcomed.

The plan which is working in Boston will work elsewhere.

The end to be attained justifies organization and encouragement.

We hope the matter will be taken up and discussed elsewhere and an effort made to put the idea into actual practice.

It may appear somewhat utopian, but it is capable of so much good that that fact should not be permitted to stand in its way.

If the plan works in one place it can be made to work in another, and if, despite the best efforts, there are makers who will persist in selling to chronic price cutters, another Boston idea, that of joint refusal to purchase of such makers while they pursue the policy, is an additional remedy within reach.

Of course, these suggestions cannot be brought to bear on bicycles, but they can be made to apply to accessories and sundries, in which much of the mischief is done, and a local association working to that end cannot but make the maintenance of bicycle prices one of its virtues as well.

The Sprocket's Teeth.

An old idea that is now receiving some attention in certain quarters is the lessening of the number of teeth in the sprocket wheels, and particularly in the front one. Less friction and less wear on the chain and sprocket wheels are claimed to result from this diminution.

Experiments with sprocket wheels denuded of one-half their teeth were tried some half dozen years ago, and were attended with no inconsiderable amount of success. There was one drawback noticeable—a greater tendency to jumping the sprocket teeth on the part of the chain—and largely because of this fact the experiments were not carried far enough. Had they been of a more exhaustive character it is extremely probable that the advantages would have become more apparent.

The lack of steadiness of the chain may have been due largely to imperfectly cut chain wheels and chains. The art of cutting

scientific teeth had not then reached the approach to perfection which it attained later, and even with the full complement of teeth chains had too great a tendency to jump when they were left at all loose. The matter was aggravated by the prevailing tendency of chains to stretch, and as most riders were lax in the matter of giving their machines proper attention the slack was not taken up often enough.

Consequently the chain would sway sideways and, having but half the usual number of teeth to act as guides, it was not surprising that it would sometimes jump off. But it is doubtful whether this would have happened had but one-third or one-quarter of the teeth been missing. Then the chain would have been better guided and could not have got so far away from a supporting tooth.

This theory is borne out by more recent experience. The Liberty machines had one out of every five teeth missing, yet the chains appear to have run quite as steadily as the regulation pattern and never to have given any trouble. This makes it plain that a tooth for every link is not necessary, and it may be that it is not even desirable.

It is a matter that is certainly worth a more exhaustive trial than has ever been given it. It is obvious that for every tooth dispensed with there will be a lessening of the friction, and as chain friction is a very big item in the running of the machine an improvement in this respect is certainly worth bringing about.

Foreign Policy that Pays.

One of the secrets of success in the commercial world lies in giving the purchaser what he wants.

There is sometimes more money in selling him something different from his ideal, whether it be because there is an overstock of the former or that the goods are easier to make. But this does not often happen nor does it make the disposal of the goods an easier matter.

But it is very plain that it is bad policy to force on the buyer goods that he does not want; whether this reluctance be based on mere prejudice or on sound, incontrovertible reasons. Any measure of success attained will be only through effort that would have yielded better results if applied in other directions.

This is well illustrated by the marked success that is attending a large Western concern in the endeavor to extend its export trade.

No attempt whatever is made to force upon

foreign customers machines which, whatever their merits may be, are different from those they have been accustomed to. On the contrary, the policy is to give them just what they want, or think they want, and have no argument about it.

In the copying of foreign patterns they fairly outherod Herod. They fit brakes and mud guards and lamp brackets; build the machines with outside joints, "box" fork crowns, cotter-pin-fastened cranks, tremendously wide pedals, etc. Thus assembled the machines appear to be quite to the manner born.

These machines encounter no prejudice; they do not have to be talked up and proved to be better than the home product; they are indistinguishable from the latter, and, entering into competition with them, meet ready sale.

There is a lesson here pregnant with meaning for those who want foreign trade and are willing to take it on the buyer's own terms.

We had an epidemic of high gears. It created lots of talk and made sales, but the folly of an increase of gear without an increase of leverage was not made plain until some harm resulted. Realizing it, the BICYCLING WORLD has been urging longer cranks to provide the necessary leverage. These cranks are now promised for next year, and with the rational combination of long cranks and high gears some interesting experiences and stimulating talk should result. It would not surprise us did the combination prove the discussion of the year.

In its frantic effort to do something to injure the BICYCLING WORLD the Cycling Galoot extracts one line from an interview which we published and makes it appear that this paper made the statement, "The coaster brake has hurt the sale of new wheels this year." In the Fourth Estate this is what is usually termed "dirty journalism." Is it possible that the personally decent editor of the Galoot is becoming affected by contact with Russian brass?

"Inclosed find check to cover our renewal for 1901. Our clerks look for the BICYCLING WORLD as regularly as the landlord for his rent."—Connecticut Rubber Co., Hartford.

"Enclosed it \$2 for another year of the BICYCLING WORLD; couldn't well get along without it."—G. D. Leach, Eaton, N. Y.

SUCCESS IN STRANGE STORE

Dealer Who Has Made Money Without Evening, Sunday or Holiday Trade.

In all New York if there is a more unpromising location for a strictly retail cycle store than Barclay street it is difficult to imagine where it is.

Barclay street, as those not familiar with the metropolis may not know, is a thoroughfare only six or eight blocks long in the thick of the downtown business district; it runs from the North River to Broadway. It is much travelled, particularly during the morning and evening hours, by the crowds rushing from and to the elevated railroad and the New Jersey ferries, but after 6:30 p. m. and on Sundays and holidays the street is almost as quiet and deserted as a graveyard.

With the evening trade and that of holidays and Sundays playing such an important part in the affairs of the average bicycle dealer, Barclay street is about the last place in New-York that one would select for a purely retail cycle store. There are factory branches and jobbing establishments all about the vicinity, but of retail stores there is just one, that of Thomas Ward, at No. 65, and despite its unpromising situation it has existed at that address since 1895.

Its location makes it something of a trade rarity if not a trade curiosity. The fact that it has existed for five years was such stubborn proof of success that a *Bicycling World* man called on Mr. Ward to learn "the how of it."

Ward himself is a hardheaded man nearing middle age; and, though well off in the world's goods, he is unpretentious and a hard worker. He was quite prominent as a bicycle club man before he embarked in the business, but he surprised nearly all of his acquaintances when in 1895 he suddenly abandoned his restaurant and opened the bicycle store at 65 Barclay street. The store itself is deep but narrow; the show window takes up more than half its frontage. Within it is neat and clean; the office and repair shop are partitioned off; there are pictures on the wall, and a strip of carpet runs the length of the store.

"Where does my trade come from?" said Mr. Ward, repeating the *Bicycling World* man's query. "From everywhere," he answered; "from away up town, from Brooklyn, from Staten Island, from Jersey."

"Who are your principal customers—commuters and suburbanites who pass your store every day?"

"Not at all. Some of them are, but most of them are people whose business does not call them this way. How do they happen to come here to buy? Well, I've done con-

siderable advertising in the daily papers, but I think most of them have been sent here by people who had already bought of me. Every one who buys knows three or four others who intend to buy, and I suppose when these get ready the first buyers say, 'Go see Ward; he'll treat you right.' They buy and then repeat the same thing to others, and that's the way they come to me—you know how it is.

"How many wheels have I sold? The first year I was here I sold 250; last year, 2,000—it was my best year. This season I've sold somewhere around 1,500, and I have not kept open a Sunday, a holiday or a night since I opened the store.

"Sundries? I sold more of them this year than last.

"Repair work? I do not do a great deal of it, and do not depend much on that department. I don't cut prices on bicycles, and I won't do cheap repair work. I do only good work, and get the business of only those who are willing to pay the price. I wouldn't enamel a frame, for instance, for less than \$4.50. That's the price of a good job. I wouldn't do it for less. If people want a wheel overhauled, I overhaul it; I give as much care to the smallest nut or bolt as to the larger parts. I try to do the work right in the right way, and I get the price for such work."

"What of next year? I don't know—do you? I simply know one thing—when I can't make money out of this business I'll close the store as quickly as I opened it. I've just put in phonographs as a side line, but I haven't had them long enough to pass an opinion."

For an Extra Passenger.

One of the first thoughts of a motocyclist, after he has mastered the management of his machine, is to devise—if he has it not already—some means of carrying a second passenger. He wants company, and is willing to submit to some inconveniences to obtain it. Therefore, he looks around for some method of adding to the carrying capacity of his machine.

The first question to be decided is whether the extra passenger is to be an "idler" or provided with the means of assisting in the propulsion of the machine when occasion arises. Whenever the motor has not sufficient horse power to account satisfactorily for this doubling of the load, it is very much better to follow the latter course, as then on steep hills leg power can be brought to aid the motor in surmounting them. Should anything go wrong with the motor, such assistance would be very welcome.

Of course, where the motor is of ample power such precautions are not necessary, and instead of a trailer—which is the easiest way to provide auxiliary driving—a seat in front can be constructed. This is the method most in favor, and as there is a growing disinclination to fit anything but full powered motors—say, more than 1¾ h. p.—it bids fair to be generally adopted.

WHAT LONDON WRITES ABOUT

Mainly Motorcycle Flatters that Convey Suggestions to the American Trade.

London, Oct. 13.—In close connection with the motorcycle, especially when the latter takes the form of a four-wheeler, I saw this week a small vehicle which was practically an ordinary quad with the saddle removed and also the front seat. The pedals were detached and the vehicle was converted into a small car, which, in winter, will be likely to be appreciated. The machine I saw is easily reconverted to a motorcycle, in the ordinary sense, should the rider so desire, and so it is a pattern which answers the purpose of a motorcycle or a small car. In the car form, however, it is only suitable for one rider. The speed is fast, but there is a lack of hill-climbing power when the roads are heavy or the gradients very steep. The cost is not greatly in excess of the ordinary quad as usually sold.

In some respects the idea resembles that brought out by the Progress Cycle Co., Ltd., in connection with their motor quad. In the case of the "Progress" the front seat is easily detachable, and can be replaced by a suitable basket or box for the delivery of light goods. This machine will doubtless find a ready sale among tradesmen who wish to be thoroughly up to date, because not only does it act as a most efficient carrier, but on the Sunday it is useful for taking the trader's wife into the country, after the manner of the seven days' pony now in common use. The only difficulty lies in the fact that at present good motor drivers are few and far between, and it is difficult to get a lad with a sufficient knowledge of machines of this class to be trusted with an expensive vehicle, especially in the streets of large towns. The hill-climbing difficulty is also apparent, for unless a motorcycle be geared very low it is bad on hills if carrying much weight. Perhaps, however, for delivery purposes this defect is not so apparent as in ordinary riding, because a good deal of the loss of power is directly due to the heating of the comparatively large sized motors now deemed necessary. With the constant stoppages necessitated in delivery rounds the engine would have time to cool. If, however, friction clutches are employed, the temptation to let the motor run while the machine is standing will be great, and then overheating may easily occur.

Within the last week three accidents, one rather serious, have occurred to motocyclists when attempting to turn corners at too great speeds. In no case has an actual capsize taken place, but the front wheels have failed to obtain sufficient steering grip of the road, with the result that the machines have skidded sideways and collided against obstacles, and in one instance against a brick wall, with the result that damage has been

done, while in the latter case the rider received some bad cuts. It would seem that the wheel base of the average motor tricycle is not sufficiently long to insure the steering wheel getting a firm hold of the ground, while, in addition, the weight of the motor behind the axle is another cause of the skidding. The "Ariel" tricycle, which has the motor in front of the main axle, is much better in this matter. For the same reason those tricycles which have the motors placed horizontally in the frames also steer better on grease and at corners, and do not jump so much when being started.

Just now we seem to be suffering from an epidemic of stale or adulterated petrol, for recently I have met drivers of cars who could not get their vehicles to do more than crawl and riders—or rather would-be riders—of motorcycles who have had to resort to pushing their machines. In each case the fault was traced to the petrol or spirit used. It does not matter how much one pays for it, there is no certainty of getting it in proper condition. In the case of a car the matter is not so utterly disastrous, because it is possible to get along slowly; but with the tricycle or quad, stale or defective petrol means a complete stoppage. Yet the price here is very high, and at a few inns where it is stocked the charge per gallon is often 70 cents, which is a bit stiff, especially when it is found that the oil is old and bad.

I hear that it is just possible that, when the excitement of the election is over and we settle down to army reform, the subject of motors for military use will receive serious attention. At first motorcycles will most likely be of service, and it is highly probable that some experiments will be tried with these. In the event of an order being placed by the Government, I hope it will not be drawn up and passed by the same people who "designed" the army bicycles. These machines look perfect "crocks," and if the gentlemen responsible for them spoil the by no means perfect motor tricycle to the same extent the chances are that the machines will not run at all. We have a knack in this country of putting influential people to the work of supervising what they do not understand for a Government which knows even less of the subject; hence the chances are against the military motor in England for many years to come. In Germany such machines are comparatively advanced, and German officers have used not only motorcycles, but large cars, during the recent manoeuvres.

Hendee's New Models Ready.

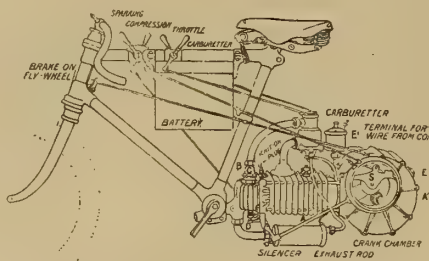
The Hendee Manufacturing Company, of Springfield, Mass., already have their 1901 models ready and will show them to the trade early next month, when their travelers will "take to the road." Last year was the most successful in the history of the Hendee company, and deservedly, because they had one of the best values in bicycles ever offered.

D. J. Post, president of the Veeder Manufacturing Company, returned to Hartford this week, after spending four weeks in New Mexico, hunting for wild game.

FRENCH ORIGINALITY AROUSED

Some New Motorcycle Creations Result, a Novel Cooling Device Amongst Them.

Paris, Oct. 9.—Originality is not a very strong point with cycle makers here, but they seem to be developing this quality pretty extensively in the motorcycle trade just now. Every manufacturer of cycles is trying to make up for the low profits in his old business by engaging in the more remunerative occupation of building motor driven machines, and as there is so much competition in this new line each endeavors to put his own mark on the wheels he turns out. Makers find this the more difficult, as there really seems to be very few practical variations from the usual methods of fixing motors to tricycles or bicycles and gearing



THE RENAUX MOTOR TRICYCLE.

them either by spur wheels or belts. Up to the present all the leading firms have bolted their motors on the "bridge," or tube, parallel with the axle, to which it is geared by spur wheels, and only one, the Messrs. Renault, has struck out in different lines by building their horizontal motor into the frame, and thus giving a greater rigidity to the mechanism.

Another novelty that has come under my notice is an adaptation of the Pernoo transmission to the tricycle. In the Pernoo machine the motor is fixed on the down tube and power is transmitted from the motor shaft to the rear driving wheel by a belt running on a pulley fastened to the spokes—a sort of reversal of the Werner system. The tricycle was of the rear steering type, with a seat between the two front wheels and a saddle for the driver carried on a pin inserted in the down tube in the usual way. The motor was fixed to the down tube and connected by a belt with the rear wheels. I saw this machine climbing a long hill with two on board, and it went up at a good speed with only occasional pedalling. The idea appears to be an excellent one, for it is evident that the motor can be fixed on the frame at quite as high powers as when carried over the axle. The arrangement would also seem to give greater flexibility of power and stability to the machine, but a serious objection arises whether the considerable pull on one side of the wheel would not

make it untrue. It is only necessary, however, to point out a defect in order to find a remedy.

The great drawback to the ordinary motor tricycle is the want of flexibility referred to. The motor is imprisoned by the gear, and if, when going up a hill, the resistance of the gear should bring down the revolutions to a point at which the power developed is inoperative, the motor stops unless it is assisted by the pedals. Several speed changing devices have been brought out, so that the resistance can be reduced by using a low gear when climbing hills, but none of them have found much favor, chiefly because the complication of mechanism is not warranted by any saving of energy in pedalling up steep hills. Most cyclists prefer to use a high powered motor which will take them up any gradient. Yet a simple form of change-speed gear would undoubtedly meet with approval—one which is silent and prompt in action and can always be depended upon. The Fils de Peugeot Freres now adapt a change-speed gear to their quadricycles. They have a motor which runs independently of the pedals, so that it can be started by a handle without the driver being obliged to move the dead weight of the machine and overcome the enormous resistance of the compression with his feet. Now that motors of six horse power and more are being used on tricycles and quadricycles, this is a decided advantage. The change-speed gear may be very efficient, but it is a striking example of the want of simplicity in French mechanical work. The lever operating it from near the head tube has no fewer than seven joints. To the average mind it would seem to be much better to have one straight lever, to be worked from behind.

A useful device has just been brought out by C. Terrot, of Dijon, for utilizing the compression of air in the case containing the crank for cooling the combustion chamber. This is one of those very simple things which make one wonder why it was not thought of before. The leading idea is to provide some escape for the air in the motor case, as with each movement of the piston the air undergoes an alternate expansion and contraction which not only heats the motor, but also offers a certain resistance to the piston. This would, of course, be easily overcome by making a hole in the case, at the risk of losing some of the lubricating oil. M. Terrot screws a large section tube on the top of the case, the tube terminating in a smaller one which is bent so that the open end is directly over the combustion chamber. With each upward movement of the piston cold air is drawn into the case when it takes some of the heat from the cylinder. Upon the piston descending the air is forced up into the large section tube, where it expands and cools, and finally issues in a sort of cold blast over the top of the motor. If the apparatus be efficient in practice as it is ingenious in theory it should prove a very useful accessory.

SUIT OVER SPOKES

American Machines Claimed to be Useless in British Workmen's Hands.

Before the United States Circuit Court, sitting at Hartford, Conn., and presided over by Judge Townsend, there came up last week a case of considerable interest to the trade, and one involving a large amount of money.

When the court adjourned on Friday night, to resume its work on Tuesday, matters had only progressed sufficiently to make plain the line of attack and to afford an indication of the defence. It is expected that several weeks will be consumed in trying the case, and as a strong fight will be made by the defendants interesting developments are looked for and promised.

The suit is that brought some months ago by John S. Brown and Ernest Brown, of London, Eng., doing business as co-partners under the name of Brown Brothers, Limited, against George J. Capewell, of Hartford; William G. Allen, of Hartford, and Charles Flint, who is described as being formerly of Hartford, but of parts unknown at the time of the bringing of the action.

It is alleged that on or before July 15, 1897, the defendants offered to sell to the plaintiffs for £12,500 (about \$62,500) a complete plant for manufacturing bicycle spokes, the plant consisting of four bicycle spoke machines, suitable header and tender machines, threaders, etc., together with a proper assignment of the British letters patent upon the improvements in the machines.

It is alleged that the defendants represented that they would provide skilled mechanics to set up the plant so that it would produce bicycle spokes of the highest quality, and also that they represented that when the plant was running it could be operated by ordinary workmen, and that the grades of steel wires ordinarily employed in the manufacture of 'cycle spokes could be used, and, furthermore, that the plant and machines would produce bicycle spokes at the rate of 8,000 spokes per each spoke machine per day of ten hours, and 150,000 gross of spokes in the 270 working days of the first year of operation, and that the plaintiffs would make a large profit.

The plaintiffs closed with the offer. Before January 1, 1898, they paid the defendants £12,500, less a rebate of £2,000. Of the £12,500 the sum of £10,000 for the letters patent, and £2,500 for the plant and machines. In February the defendants delivered a plant and machines, and provided skilled mechanics to set up and operate them. Between February, 1898, and December, 1899, the plaintiffs endeavored to operate them, and secured skilled mechanics to operate the machines, but were unsuccessful in all attempts. They complain that plaintiffs and defendants together endeavored to repair the machines and to supply new parts, but that the machines are incapable of manufactur-

ing spokes of a commercial quality. It is denied that the machines could make spokes at the rate of 8,000 spokes per day per machine, nor could said machines produce spokes in any quantity whatever.

In their answer to the complaint the defendants admit that at the time of the acts referred to in the first paragraph of the complaint they had made some improvements in machinery for the manufacture of bicycle parts and bicycle spokes, and that one or more of them were the inventors and owners of certain improvements in automatic machinery for the manufacture of such spokes, and that they owned or controlled letters patent of the United States and Great Britain and of other countries for such improvements.

It is also admitted that the principal value and merit of the machines invented and patented by them, or some of them, were in the capacity of the machines to cut, roll, swage and finish bicycle spokes of a quality equal to the spokes manufactured by other processes, in one process, without intervening labor, and with great rapidity, and that the saving of labor in such manufacture and the speed in the production of finished spokes of a marketable value were the essential features of the machines.

It is also admitted that the plaintiffs have made some effort to operate the plant and machines, and that the defendants have, at the request of the plaintiffs, supplied some new parts and new tools for the machines. The defendants deny that they warranted the machines to produce at the rate of 8,000 spokes a day, or that the machines could produce spokes in any quantity.

The rest of the matter set out in the complaint is denied by the answer, or the defendants plead that they have not knowledge or information sufficient to form a belief. The defendants also make claim for \$2,000 by way of offset for goods delivered and money paid out and expended for the plaintiffs.

Various witnesses were called, among them being Ernest Brown, of the complainants, and A. V. White, superintendent of the latter's works in London. The latter presented a statement showing the cost incurred in setting up the machinery, and was instructed to reduce it to a more compact form.

When court opened at 10 o'clock on Tuesday morning the examination of A. V. White was resumed. His testimony showed that the failure of the machines was due to the combining of the two processes of rolling swaging in the same machine. On cross-examination he said that the cost to the complainants to learn this was between \$13,000 and \$18,000, and also that it occupied two or three months to learn what was the cause of the failure. The value of the spokes made was about \$10.

J. J. Schneider, of the Nester Coaster and Brake Co., Buffalo, was among the trade visitors in New York last week. He says the Nester had to feel its way during the past season, but that it gave such general satisfaction that it cannot well fail to make a deeper impress in 1901.

AUSTRIANS CRY OUT

Again Ask that Import Duties be Increased—Request Likely to be Heeded.

Austria's cycle and motor industry is said to be in a very bad state. The motor manufacturers do not seem to be able to compete with foreign makers, and it is more than likely that the Government will give a willing ear to the proposals to raise the import duty on such commodities. The manufacturers ask for a duty of 35 gold florins instead of 25 on each bicycle, and 250 gold florins on every 100 kilos of cycle parts and accessories. Under this arrangement "motorcycles and frames for such are to pay 210 gold florins per 100 kilos, light cars 250, and cars with over four horse power 100 gold florins per 100 kilos. All single motors and parts and accessories are to pay 250 gold florins per 100 kilos. The Central Association of Austrian Manufacturers has taken the matter in hand and declares that it intends to carry it through.

Speaking of Gas Lamps.

He was an ex-travelling salesman for a lamp concern, and when the merits of the several gas lamps were under discussion he declared himself.

"Of all the gas lamps that made their appearance last year," he said, "there was just one that was a pronounced success, and it wasn't the one I sold, either; it was that Columbia lamp, made by the Hine-Watts Co., of Chicago. I'm not 'knocking' any one," he went on, "but I know what I am talking about."

The ex-salesman wasn't talking for publication—a fact that adds to the value of his testimony.

Troy Strikes It Rich.

Willis B. Troy, once Zimmerman's trainer and a figure in the cycle trade, has "struck oil," or, literally speaking, has struck gold. After drifting out of the trade, he some way or other obtained an option on an Arizona mine. "Pay dirt" was struck soon after, and Troy acquired a half interest. The mine has since proved a bonanza, and Troy is now independently rich. He flits between Arozinga and a princely office on Fifth avenue, New York, but expects shortly to establish a bank in the Western State and locate there permanently.

Increase of Price Possible.

It is stated that a strong effort is being made to raise the price for 1901 of one of the A. B. C.'s most prominent \$35 models of this year, the highest priced chain model of the line in question. There seems a strong possibility that, while a \$35 model will be again listed, one at \$50 will also make its appearance. The factory concerned is said to have netted a loss this year, which may account for the effort.

ON A MOTOR BICYCLE

Graphic Story of the First Tour on That Type—The Lessons Learned.

Bump, bump, bump, bump. We bumped on our motor bicycles all the way from the Avenue of the Great Army, in Paris, to the Golden Gate that leads to the east of France. Of course, I might have had a thirty horsepower car; I might have gone in the train or on an ordinary bicycle, says Joseph Pennell, the Anglo-American artist and foreign marshal of the L. A. W., in describing his tour on a motor bicycle, the first recorded occurrence of the sort. But, having tried all these methods and more, it was simply, for the moment, my ambition to drive that motor bicycle myself. I climbed a long, steep hill, and then I thought my troubles were over. The paving ended, the road became smooth and straight, and, pushing and pulling handles and levers, the little thing began to run all by itself, and to run like mad. It sped away across the level plains toward Melun. The air grew fresher and fresher, and even cold. I was chilled by the rapid motion. It was time to put on those leather clothes. I stopped. There were no leather clothes. There was no bag on the luggage carrier. There was nothing but a broken strap. I had dropped a complete suit, a tool bag and a travelling bag, and I never knew it. For when a motor bicycle is going you could drop almost a cartload of coals and never know it. But they manage these things better in France. After an hour's hunt I found the missing traps at the Mairie of Villeneuve St. George's, to which they had been carried. I had dropped them in the streets of that town.

Bump—bump again. But soon it was over, and the good road flew underneath me almost half way to Melun. And then—just about half way—the machine stopped. Well, maybe those people in London who tried to make me buy their motor tricycle were right. Maybe the machine was a fraud. Maybe I had been swindled. But I led the little beast to a tree, and I went at it. I examined its insides, its batteries, its wires, its motor, its carburetters, and all its cycling parts. After I had blistered my fingers and oiled my clothes and cut my hands it started up again—how or why I do not know. I rarely know. But two or three shoves at the pedals, two or three turns of levers, and the way the little bicycle rushes by itself, at about thirty miles an hour, is amazing. What, after this, are high gears and long cranks, free wheels and spring frames? Antiquated delusions, all to be consigned to the scrap heap. Yet, I am afraid, most people do not realize that at the present time it is possible to purchase a motor bicycle which is a practical vehicle.

Rather elated at having left two or three scorchers on the level, I crawled through the streets of Melun, for if you can tear at twenty-five miles an hour you can also crawl

at five. This way from Melun to the east of France is up a steep, paved hill, and up that hill I went at twelve or fifteen miles an hour. There may be men who have no interest in motors, or who never can learn to work them. But no cyclist can see a motor bicycle climb a hill unaided without the deepest anguish. Once up, I ran into a head wind. What of it? Like the gentleman in *Æsop*, I only buttoned up my coat. There was no grinding against the blast. There was but a feeling of supreme contentment that with a motor bicycle hills and winds are annihilated. And then—crack! It stopped. Down again. The electricity is measured all right. The wires are all right. The sparking plug is all right. Well, everything is all right, and the beastly thing won't go at all. Here is where the beauty of a motor bicycle comes in. Had I been on a car or a tricycle, or any other sort of motor, I would, as the French say, have rested en panne. But with a motor bicycle I simply pedalled it back to Melun like an ordinary. It was rather hard work for the five miles—eight kilometres—and it was rather humiliating to encounter the grin of the driver of a *De Dion* voiturette I had passed earlier near Melun as if he had been standing still. But at the shop of a most intelligent repairer, who has the honor to bear my own name, I was shown by Monsieur Pennell that Mr. Pennell had some oil on one of his wires, and that was all. So in a few minutes I was away, and then rode steadily, but probably twenty miles an hour, in the twilight, the motor going red and then white hot, into Villeneuve-sur-Yonne—about seventy miles, the first day's ride! And every bit of the seventy miles done for me by that little machine, over roads for the greater part bad enough to wreck any ordinary bicycle.

Away the next morning early through Sens; and a hundred miles, with only a few stops to oil up, were covered before luncheon. Once I timed myself; seventeen kilometres, over a beautiful stretch of road near Tonnerre, were done in twenty minutes—that is, ten miles and three-eighths. Don't want to ride like that? Don't you? It is only after you have driven a motor and devoted all your energy to driving it that you understand what the pleasure of violent motion is over a good road. It is only after a run of this kind, with no digging of pedals, no tearing your heart out, no covering yourself with a froth of perspiration, you realize that a new sort of bicycle is invented that will take you without work just a little faster than you dare to go. After Tonnerre and luncheon, on I went again. Two hundred and fifty kilometres had been covered between 8 o'clock and 4. Everything was going splendidly when of a sudden I found myself in one ditch and the machine standing on its head in the other. I had had a side slip at something like twenty-five miles an hour. My hands were torn, my face was torn, my clothes were torn and my knees were torn. The bicycle seemed to be uninjured, despite its slide on the bit of greasy

road. But I soon found it would not go. Well, I pedalled it into the next station, somewhere about ten kilometres off, put it on the train as I would an ordinary bicycle—it cost me a penny—and went to Dijon. Three hours' work, and I was off to Dole, climbing the long hills out of that town, and the still longer one out of Auxonne. On to theatrical Salins, and there, I did not know why, it stopped again. The two repairers of the town—and every French town now boasts its repairer of automobiles, as every English town seems to glory in his absence—were both in Paris. Back again to Dijon, another afternoon in another machine shop, kindly patronage and assurances that I would never get anywhere from makers of cars and tricycles. Then back again to Salins; and if the beastly thing did not stop again in the same place, in the same town!

The coal merchant, the chemist, the wine grower, the huissier and the hotel proprietor, who all owned motors, had a try at it. We had the whole machine to pieces in the hotel courtyard. But only the next morning, after a half day's work, on the arrival of a commercial in a six horsepower car, did we cease our struggles, when he mildly suggested, by means of a voltmeter, that the batteries had run out. This was a new experience. There was no charging station anywhere round the foot of the Jura, to which I had now come. Nothing would induce me to go back to Dijon or take the train anywhere. That machine was to be driven or smashed. I was just about tired of working automobiles that wouldn't work. The last wire had broken. Either the automobile was a fraud or I was a fool. Three days of waiting, and new batteries came from Paris. Five minutes after they had come, and twenty minutes after the commercial, on his six horsepower car, had left, I, too, started for Pontarlier. There is a steady climb of seven kilometres from Salins. Though I felt sorry for the commercial, I felt glad for myself when I tore by him in the middle of it. Climb hills? I have never yet seen anything to touch the machine. I may some day. Through Pontarlier, across the frontier, only stopping at the French Custom House to be sealed, into Switzerland, where, of course, began the pigheaded formalities of signing papers and depositing duty, 20f of good French gold, later to be returned to me at Bale, in Mexican, Sardinian, Greek and Italian silver. The Swiss have now become so mean that they hardly ever circulate their own money. On to Vallobes, and then down to Lausanne in the morning. In the afternoon, through that horrid purgatory of steam trams and diseased and decrepit villa architecture, to which the entire Lake of Geneva has been prostituted, to Aigle. This much had I ridden in one week, and of that week three days only had been spent on the motor and four off it. I was told that the fastest time made from Paris to Lausanne by a racing car was sixteen hours, with a trained crew of engineers. I had taken about twice as long. But I had done it all myself and learned to drive the machine as well.

WAYS OF WHEELS

What Results When An Obstruction is Encountered—Side Slip.

Very little attention has been paid to the subject of wheel building of late years; indeed, the matter is one that has suffered from neglect to a greater degree than almost any other part of the bicycle.

It is not that matters have stood still. Progress, improvement—these have marked the methods in vogue for more than a decade, and the result is extremely gratifying. But the means by which it was obtained have lacked system. Each maker has worked along lines of his own, seemingly heedless of what his competitors were doing. If success attended him that was all he cared for.

The theoretically perfect wheel, or even anything closely approaching it, is even now impossible of attainment. That it is highly desirable, however, is equally evident. The lack of it accounts for most of the wheel troubles that are still causing annoyance to the trade and public. Moreover, it is charged against untrue wheels that they are one cause of side slip, in addition to their many other shortcomings. An English writer figures it out in this way:

Let us see what takes place in the wheel when an obstacle is ridden over, such as a brick or a drop over a curbstone. The probable blow the wheel has to meet may be 1,200 pounds. The pneumatic tire, if well pumped up, may be credited with being able to withstand half, or 600 pounds; the other 600 pounds must be opposed by the wheel.

Suppose the wheel (28-inch diameter) has 32 spokes, every one being tensioned up to 84 pounds, then the eight spokes in the lower portion of the wheel and the rim to which they are attached are capable of withstanding the 600 pound blow, leaving 72 pounds as a safety factor, plus the arched form and strength of material in the rim. Because, as the eight spokes are lowered in tension, the 24 spokes are increased in tension; consequently after the effect of the blow the wheel, owing to its elasticity, resumes its true form of a circle. As no member in the complete wheel has failed to take its share of the blow, and as this share is within the compass of its ability to stand it, no permanent deformation takes place. Broadly stated, no spoke in an ideal wheel can be affected without influencing all the spokes, whether it be in driving or the effect of a blow as described, or side buckling, such as side slipping.

Now we may examine the effect produced by such a blow upon a wheel—not an ideal one, but the ordinary, average wheel of commerce. The distribution of the blow is the same, but the conditions to meet it are different, because the ordinary wheel is made a true circle irrespective of equal tensions in all the spokes. These may and do vary,

scarcely ever less than 3 to 1, and often 8 to 1. But take a variation, very usually found in an ordinary wheel of 4 to 1, and say these are 200 pounds and 50 pounds respectively, what will happen under a blow of 600 pounds?

To understand the effect we must assume the blow to be struck when the low tension spokes are at the bottom, and then consider the effect when they are at the top of the wheel. In the first case, with the low tension spokes at the bottom, the effect of the blow is to release all the tensions of these, and as their combined tensions are insufficient to meet the blow the rim tends to buckle inward to meet the deficiency, and as one-fourth of its circumference is un-



NEW YORK BRANCH: 214-216 WEST 47th ST
BOSTON BRANCH: 80 BATTERY MARCH ST.,
Near Fort Hill Square.

supported at that moment the effort to buckle inward produces a side whipping action, known by the popular name of side slip.

This movement will not take place in the ideal wheel, because as the lower members are reduced in tension the other three-fourths resist it by increased tension. But in the case before us the highest tension spoke takes the full brunt of the blow until it stretches sufficiently, or the rim is locally deflected, to enable the next highest to take its share, and so on, down to the lowest tensioned member of the three-fourths. Under these circumstances two things occur—either the highest tensioned spokes are permanently stretched or the truth of the rim is permanently distorted, but in either case the result is an untrue wheel.

Now, what occurs with the high tensioned spokes at the bottom and the low ones at the top is this: they are capable of receiving the blow, with reserve strength to spare, and side slip will not take place. But the low tensioned spokes at the top will receive a sudden addition to their tension similar to a snap. Then the spokes on either side of them will receive their share of the resistance in the order of their highest tensions in a series of rapid jerks, all tending to permanently stretch the higher tensioned, and to permanently distort the rim.

STRIP OF STEEL

Oil Tempered and Elastic, Protects Tread—Resiliency Claimed Unaffected.

Numerous efforts have been made to accomplish the impossible—to employ for the tread of pneumatic tires a material that will be impervious to puncture and yet so pliable as to cause no loss of resiliency. None of them have ever been attended with sufficient success to cause a ripple in the tire trade.

The reason is not far to seek. Riders want immunity from puncture, but they are not willing to pay the necessary price. No amount of security will reconcile them to the slightest decrease in resiliency. They may think that it will, and for a time use a tire possessing the desired qualities; but sooner or later they will rebel against the self-imposed handicap and return to the more dangerous but better liked tire of the regulation construction. This has been the rock upon which every inventor of tires of this description has struck; and invariably with disastrous results.

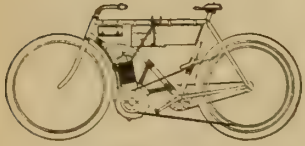
But as hope springs eternal in the human breast, so inventors return to the charge despite the warning sounded by the fate of past workers in the field of puncture proof tire endeavor. One of the latest efforts in this line emanates from an East Orange, N. J., man., Dr. J. D. Parker, who has devoted considerable time to the production of a non-puncturable bicycle and automobile tire.

He has devised a steel tire which he thinks will answer the needs of the bicycle, still retaining the pneumatic rubber tube for a cushion. The invention, in brief, consists of an integral ribbon of steel thrown around a cushion for a tire which is especially constructed for its work. The tire has recessed flanges to hold the cushion.

The ribbon of steel is made so elastic that it is possible to wind it up into a tight coil. Such a covering as this, Dr. Parker thinks, will render the rubber absolutely non-puncturable, and will, with fair usage, last as long as the frame of the bicycle. To make the coverings for the tires is no simple matter. First the steel is cold rolled to the required width and thickness. It is then given an oil temper. When it is finished the metal is as tough as modern steel can be made, yet it is flexible and feels almost as soft and pliable as buckskin. It is almost impossible to break it except under the hammer.

The rubber tubes do not touch the ground, and it is claimed that they are not subject to any wear except what results from compression. It is thought that, protected by the steel, the life of the rubber tubes will be much prolonged.

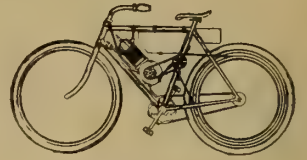
..A REVOLUTION IN CYCLING..



AUTOBI, NO. 1
RACER.
Patent Pending.

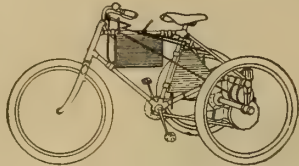
..MOTORS FOR BICYCLES..

.BICYCLES WITH MOTORS.

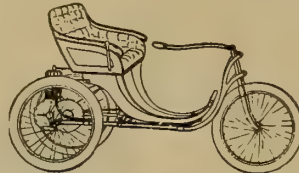


AUTOBI, NO. 2
ROADSTER.
Patent Pending.

MECHANICALLY
PRACTICAL.



AUTOTRI
AN IDEAL ROADSTER.
Patent Pending.




AUTOTWO
AN IDEAL ROADSTER FOR TWO.
Patent Pending.

COMMERCIALY
PRACTICAL.

Cheapest Mode of Transportation Known to Mankind. Every Bicycle Dealer, Manufacturer and Repairman is Interested. Send for Catalogue and Discounts.

AGENTS WANTED EVERYWHERE.

E. R. THOMAS MOTOR CO., 108 BROADWAY, BUFFALO, N. Y.




THE

JUSSEY

ADJUSTABLE BAR

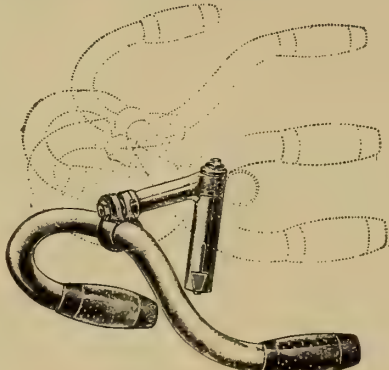
DETACHABLE
FORWARD EXTENSION





It has caught the Dealer's Fancy===Why? Because it


CAN be adjusted to 45 different positions without changing distance between grips.

Can be used with or without forward extension.




With all different adjustments grips are always parallel. Expander is absolute, and will release. Best material, construction and finish.



If your Catalogue does not contain it, the dealer will look elsewhere and you will lose trade.
Prices and extras upon application.

THE SNELL CYCLE FITTINGS CO., TOLEDO, O.



PRUDENCE IS PRESCRIBED

Obligations are Imposed on Cyclists as Well as Privileges Granted.

Many years have elapsed since the status of the bicycle was legally defined, and no serious attempt has ever been made to deprive its riders of the rights thus secured. On the other hand, injudicious cyclists have frequently shown a disposition to overstep reasonable bounds and encroach on the rights and privileges of others.

A verdict has just been given in the Philadelphia courts that had a decided bearing on this phase of the matter. In 1889 the Pennsylvania Legislature passed an act declaring that bicycles, tricycles and all vehicles propelled by hand or foot, and all persons by whom such vehicles are ridden or propelled upon the public highways, shall be entitled to the same rights and subject to the same restrictions as are prescribed by law for persons using carriages drawn by horses.

The act gave the new method of travel a legal status not theretofore possessed by it. But with the privileges conferred by the act passed also the wholesome restrictions imposed by the common law, by statutes or by the decisions of the courts upon persons in charge of carriages drawn by horses.

In the case referred to a new point regarding the respective rights of bicyclists and pedestrians on the streets was discussed in a charge to a jury made by Judge Sulzberger, of Court No. 2, in the suit brought by Samuel B. Ogilbie against J. George Anderson, to recover damages for personal injuries received on April 17, 1897.

Mr. Ogilbie, an aged man, was crossing Chestnut street at Ninth street, when he was knocked down by a bicycle ridden by the defendant, and sustained a fracture of the arm. The case rested entirely upon a question of negligence, and the jury returned a verdict in favor of the plaintiff for \$75.

After reviewing the testimony by the witnesses presented, and the law governing the case, Judge Sulzberger said to the jury: "Quite as much care and prudence are required of a man who propels a bicycle as the man who propels carriage or dray. There is, in law, no difference between the responsibility for care. A man cannot use a vehicle, even though it be a bicycle, upon the theory that it is himself that is propelling himself along, and then exercising that utmost freedom which a foot passenger exercises in moving, because a vehicle has in it elements of danger which a man himself has not.

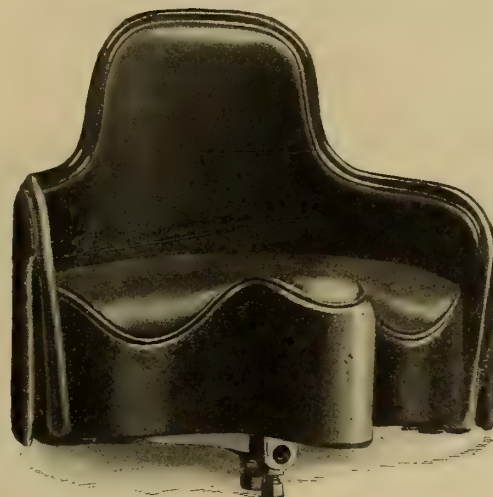
"Of course, a bicycle is a light vehicle and has no foreign power to govern, and, therefore, the man on top of it often takes risks which a man who has a foreign power to govern would not take. No prudent driver would run his horse as close around another horse's head as this bicycle rider did

in this case. If a man cannot safely run in front of a horse's head, I mean, cannot safely, consistent with the safety of the other passengers on the street, then it certainly is negligence to do that running. If it requires such a violent push or sprint that he can no longer control his vehicle, and that innocent people on the crossing must be struck by him by reason of his not being able to control it, then the propulsion of a bicycle at a crossing at that rate is negligence.

"My thought on the subject is this: If the man was standing still, the defendant ought to have had the vehicle under such control that he could have avoided him. According to his story, he knew that the old man was in a panic, and could no longer exercise intelligent discretion in a sudden emergency which threatened him with harm. He says himself that he could, because, as he watched the man in a panic, he regulated his motions three times to suit the emergency and yet he hit him."

Saddle for \$22.50.

Hold your breath! Here's a cycle saddle that retails for \$22.50. There's no mistake



about the figures—\$22.50 is right. But it is a saddle for motorcycles, and the first of the sort made in America. It is the product of the Persons Mfg. Co., of Worcester, Mass., who are bent on making hay while the sun shines.

The saddle is, of course, designed more particularly for tricycles and quadricycles on which the rider does not use his pedals steadily, but carries most of his weight on the saddle, making an upholstered seat and a back rest particularly grateful.

The interior of the Persons seat contains a bed of ten distinct springs laced into position at the top and bottom, each permanently attached to the base, and all being canvas covered. Resting upon the springs is a layer of mohair properly distributed and retained. The back and sides are of sheet metal. Extending from under the base at each side of the seat and in the rear is a sheet metal tool kit of great capacity, divided into a series of leather pockets. Above the kit is a pocket for papers, maps, etc. The ends of the cover for the tool compartment will be noticed at the sides of the seat, as well as the straps which hold same in place. The clamp has supporting arms which extend across the base, and two large set screws, that assure strength and safety.

IMPELLED BY INSTINCT

Riders Coast Without Thinking—Braking Requires Some Thought, However.

One thing that tells strongly in favor of the coaster brake is that the rider learns to use it instinctively. After his apprenticeship is served—after he has learned that he is never to hold his feet stationary except when he wants to coast, or to back pedal when he does not want to check his speed—he has plain sailing ahead of him.

He does not have to see that he has come to a down grade before he begins to coast. He could close his eyes as he went along and take his mind off the subject of coasting; yet the instant he struck a bit of down grade he would find his feet stopping and himself enjoying his coast. There is no lever to be moved, no action—either mental or physical—to be taken; just as soon as the necessity for forward pedalling—in order to maintain the normal speed—is removed the feet stop. And they remain motionless just as long as the machine will run at the normal speed. When it ceases to do this the feet begin again to work, and, as before, without the rider being conscious of making the change.

It is this that lends to the device much of its fascination. It is an automatic governor that tells the feet when to rest and when to work; the mind is relieved of all thought in the matter.

It is not the same with the braking part of the device. Here an effort of the will is required. The rider must be conscious of something being required before he back pedals and so applies the brake. He learns in time to go through the operation mechanically once he is aware that it is necessary; but his feet do not, as in the case of the coaster, instinctively apply the brake without his brain taking cognizance of the action.

It may be that this is partly due to the fact that the brake is more sparingly used than the coaster. Practice makes perfect, and it will take a longer experience with the device to become accustomed to its second feature than its first.

Veteran Wants a Motor Tandem.

Burley B. Ayres, one of the shining lights of the "good old days," now private secretary of John W. Gates, president of the American Steel and Wire Company, is one of the many veterans who incline strongly toward the motorcycle. In remitting \$2 for a renewal of his subscription to the BICYCLING WORLD, Mr. Ayres adds that he is in the market for a self-propelling tandem. He wants a single track machine for two, and says he "has a theory that if the motor is hung long in the hanger the balance will be improved and the neatness of the machine preserved."

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest

models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

"Motocycles and How to Manage Them." Price 75 cents. The Goodman Company.

Kirkpatrick on Side Lines.

In addition to the complete line of Kirkpatrick saddles, the Kirkpatrick Saddle Company, of Springfield, Ohio, is getting out a number of wire goods, which will be offered to the retail cycle trade as side lines. Among the articles are a hat rack, a tool rack, a carpet beater and a baby jumper. Incidentally, the Kirkpatrick people have removed to larger quarters in Primrose Alley, so named, it is believed, because a primrose has never been seen there.

YOU REGULATE THE FLAME WITH A GAS VALVE IN THE COLUMBIA AUTOMATIC GAS LAMP.

For Bicycles, Buggies and Automobiles, and the Water-feed takes care of itself.



LIGHTS AT ONCE.

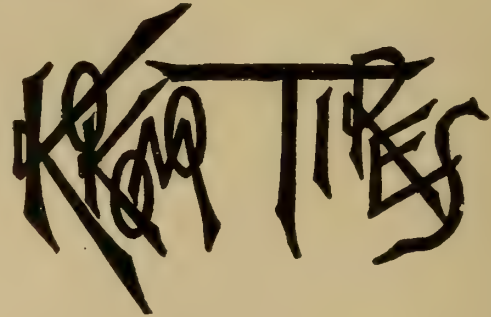
Burns $\frac{1}{3}$ the carbide. Gives twice the light.

WATER FEED, automatic, *i. e.*, requires no regulator. Water flows proportional to flame set.

GAS VALVE regulates size of flame, high or low—only lamp in which you can regulate the flame in the manner.

Gas generated at low pressure thus avoiding all danger common to high-pressure lamps.

HINE-WATT MFG. CO.,
14-16 North Canal St., Chicago, Ill.



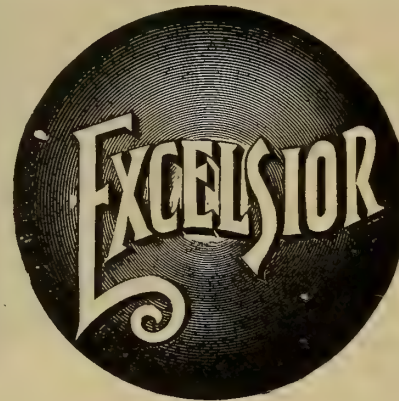
K-K-O to be on the go, get your tires from Kokomo. Made and sold by

KOKOMO RUBBER CO., Kokomo, Ind.

A GOOD ROAD TO CINCINNATI.

The Monon Route and C. H. & D. R'y run four trains daily from Chicago to Cincinnati. The day trains leave Dearborn Station, Chicago, at 8.30 a.m. and 11.45 a.m., and are equipped with elegant Parlor and Dining cars. The Night trains leaves at 8.30 p.m. and 2.45 a.m. These trains are equipped with elegant sleepers and compartment cars, the sleepers on the latter train being ready for occupancy at 9.30 p.m. All trains stop at 22d St., 47th St. and 63d St., Chicago.

Ask for tickets **via MONON and C. H. & D.**
City Ticket Office, 232 S. Clark St., CHICAGO.

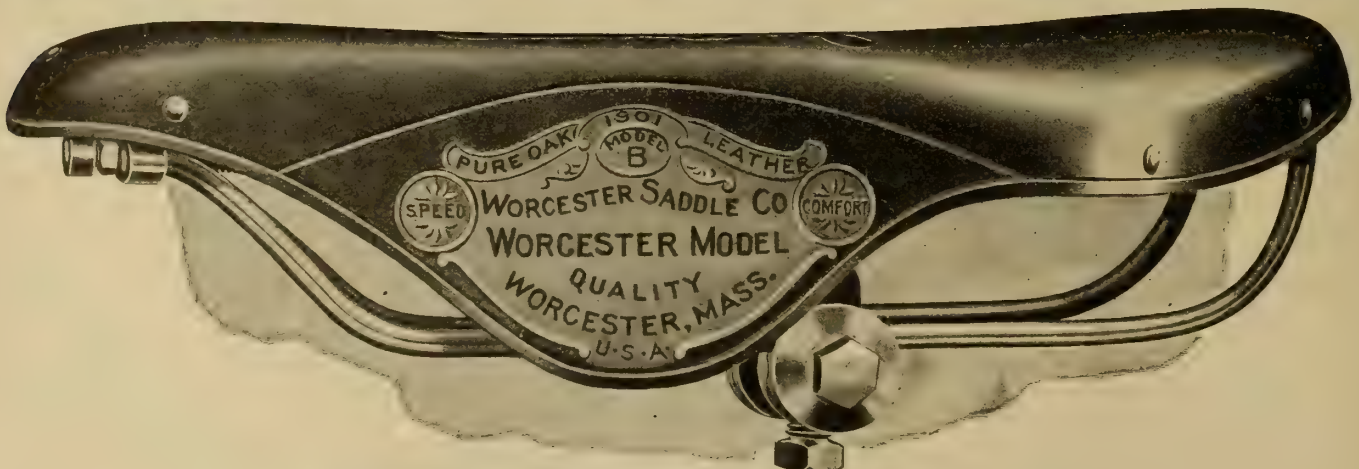


STEEL BALLS

The Best in
the World.

EXCELSIOR MACHINE CO., BUFFALO, N. Y.

A PERSONS PRODUCT.



UNEQUALLED ANYWHERE AT ANY PRICE.

PERSONS MANUFACTURING COMPANY, WORCESTER, MASS.

ANOTHER AUTOMATIC PUMP

It Comes From Connecticut This Time—
What It is Like.

In view of two conditions confronting most riders, viz., the absolute necessity for obtaining air at certain irregular intervals for their tires, and a marked disinclination to carrying the indispensable pump, there have been many efforts made to reconcile them.

A Danbury, Conn., man thinks he has solved the problem, and has taken out patents in this and foreign countries on an invention which he is preparing to exploit. In consequence, the Bicycle Frame Pump Co. has been formed, its members being Charles A. Romans, the inventor of the device, and Lucius H. Hoyt, and an active campaign is to be entered upon. A sample pump is on exhibition at Danbury, and city, state and country rights to it are offered for sale.

The construction of the pump is very simple. The inventor says he has converted the hollow tube which forms the upright section of the frame between the saddle and the crankhanger into a pump. By plugging the bottom of the tube, just above the crankhanger, he makes it airtight. A hole is bored into the tube at a convenient place to receive the nipple, which connects a rubber tube with the pump when it is in use, the tube conveying air to the tire. The plunger does not differ in principle from that in use in all bicycle pumps.

The rod passes through the hollow saddle post, and when not in use projects slightly above the top of the post. The rubber tube which conveys the air from the pump to the tire is carried in the hollow handlebars when not in use. The end of one of the grips is fitted with a cap which may be removed instantly, and the tube is slipped into the bars. The inner end of the cap is so made that it

holds the rubber tube when it is lying inside the handlebars and also forms a handle which may be attached to the end of the pump plunger.

It is apparent that the pump may be used not only in filling the tires of its own machine with air, but may be utilized for pumping up other machines. In fact, it differs in no way from other bicycle pumps, so far as its general use and utility are concerned.

Police Squad's Repairs Influence the Chief.

Heretofore the Washington (D. C.) Police Department has purchased wheels for the use of its bicycle squad, "but as every rider has his preference, and as the item of repairs has become an expensive one," the superintendent "after mature study and consideration" believes, "that economy and prompt results would follow if members mounted on wheels were required to provide their own bicycles and to keep the same in repair. Besides benefiting the department, it would give more satisfaction to the operator. It is proposed that bicycle privates should purchase their own wheels and keep them in repair, as the mounted officer does his horse and feeds it, with a certain small annual allowance in each case as actual compensation, which has been reckoned at \$50 each per annum." The expense attending the Washington cycle squad, including purchase and repair of wheels and the providing of tachometers, or speed indicators, was \$2,239.49.

Feature of the Fisk Valve.

The Fisk Rubber Co., Chicopee Falls, Mass., makers of Fisk tires, have a method of making the valve stem which is peculiar to themselves, producing a practically unbreakable stem; the lining is semi-cured before the stem is made up, and is unalterable by heat when the tire is vulcanized. This means, they say, that the lining is never punctured by the adjacent fabric, and the valve stem consequently will not leak.

PROTECT YOUR TRADEMARKS

Urges Our Copenhagen Consul—Why and How It Should be Done.

Prompt action should be taken by American manufacturers to prevent the appropriation of their trade marks by unscrupulous foreign firms, says Consul John C. Freeman, writing from Copenhagen.

In order that an American citizen or firm may get a trade mark registered in Denmark it is necessary, as a preliminary step, that the same trade mark be registered in the United States.

For effecting the registration of a trade mark in Denmark the following documents, etc., are required:

(1) A power of attorney signed by the petitioner (who must be the same party to whom the corresponding trade mark in the United States belongs). This signature must be authenticated by a Danish consul in the United States.

(2) An official extract from the United States trade mark register showing that the mark in question has been duly registered in the United States. This extract has also to be authenticated by a Danish consul.

(3) Two electro blocks of the mark, one of which must be mounted on a metal base. The mark must not exceed 15 centimetres (5.9 inches) in width or 10 centimetres (3.9 inches) in height, and the electros must be deeply cut.

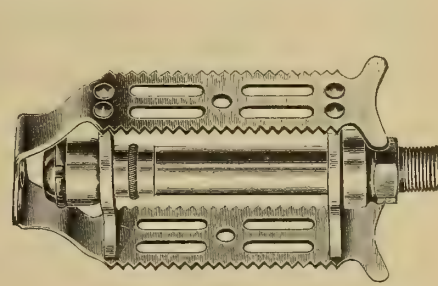
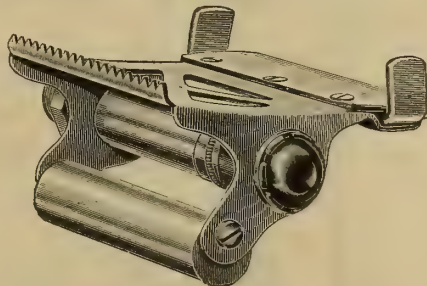
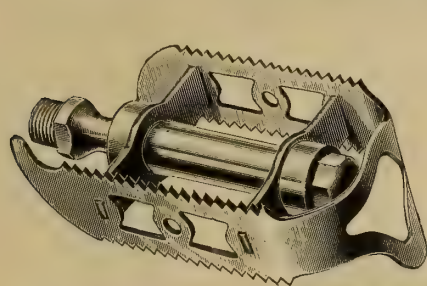
(4) Six prints of the mark on strong white paper.

I may add that the requirements for the registration of a trade mark in other Scandinavian countries are the same as for Denmark.

"Motocycles and How to Manage Them." The name explains the nature of the book. Price 75 cents. For sale by The Goodman Company. . . .

... WE REJECTED ...

and returned to the makers a considerable quantity of material that was not good enough to go into CURTIS PEDALS. It is being used by others.



Curtis Pedals

are as good inside and under the nickel plating as they are on the outside.

That's why they have been a standard of quality for nearly ten years.

Can you be interested in pedals of the sort?

REED & CURTIS MACHINE SCREW CO., WORCESTER, MASS.

Big Shipments to Philippines.

For the week ending October 16, 1900, the shipment to the Philippines was the feature of the export trade; valued at more than \$6,000, it was far and away the heaviest parcel. The manifest for the week follows:

Argentina Republic—1 case bicycles, \$39; 19 cases bicycle material, \$940.

Alexandria—20 cases bicycles, \$490.

Amsterdam—11 cases bicycles, \$211.

British West Indies—9 cases bicycles, \$154; 1 case bicycle material, \$31.

Bremen—1 case bicycles, \$50; 2 cases bicycle material, \$101.

Brazil—19 cases bicycles, \$329; 3 cases bicycle material, \$69.

Barcelona—2 cases bicycles, \$37.

British East Indies—7 cases bicycles, \$876; 18 cases bicycle material, \$840.

Cuba—2 cases bicycles and material, \$166.

Copenhagen—51 cases bicycles, \$525; 73 cases bicycle material, \$3,142.

Christiania—1 case bicycles, \$30.

China—7 cases bicycles, \$246; 13 cases bicycle material, \$1,178.

Dutch Guiana—9 cases bicycle material, \$326.

Ecuador—2 cases bicycles, \$62.

Genoa—2 cases bicycle material, \$110; 2 cases bicycle material, \$135.

Glasgow—4 cases bicycles, \$120.

Hamburg—1 case bicycles, \$75; 12 cases bicycle material, \$530.

Havre—1 case bicycles, \$23; 3 cases bicycle material, \$105.

Hong-Kong—6 cases bicycles, \$464; 9 cases bicycle material, \$563.

Japan—96 cases bicycles and material, \$1,402.

London—38 cases bicycles, \$515; 8 cases bicycle material, \$268.

Liverpool—8 cases bicycles, \$365; 2 cases bicycle material, \$40.

Philippines—88 cases bicycles and parts, \$6,233.

Porto Rico—2 cases bicycles, \$52.

Piraeus—4 cases bicycles, \$165.

Rotterdam—10 cases bicycles, \$480.

Siam—2 cases bicycles, \$55; 1 case bicycle material, \$40.

Southampton—1 case bicycles, \$39; 17 cases bicycle material, \$422.

Smyrna—2 cases bicycles, \$73.

Venezuela—3 cases bicycles, \$77.

Wasa—1 case bicycle material, \$25.

Warberg—2 cases bicycle material, \$95.

Exports of bicycles and cycle material from the Port of New York for the week ending October 23, 1900:

Antwerp—1 case bicycle material, \$20.

British Guiana—4 cases bicycles, \$187; 7 cases bicycle material, \$165.

Bremen—2 cases bicycles, \$165; 4 cases bicycle material, \$190.

British Honduras—2 cases bicycles, \$72.

British West Indies—11 cases bicycles, \$305; 7 cases bicycles, \$248.

British East Indies—4 cases bicycles, \$144; 1 case bicycles material, \$59.

British Possessions in Africa—19 cases bicycles, \$712.

British Australia—2 cases bicycles, \$75.

Brazil—1 case bicycles, \$61.

Cuba—10 cases bicycles, \$284; 6 cases bicycle material, \$189.

Copenhagen—3 cases bicycles, \$58; 11 cases bicycle material, \$674.

Dresden—1 case bicycles, \$50.

Greenock—2 cases bicycles, \$35.

Gibraltar—1 case bicycles, \$35.

Gothenburg—1 case bicycles, \$20.

Genoa—1 case bicycle material, \$35.

Havre—1 case bicycles, \$30; 13 cases bicycle material, \$326.

Hamburg—15 cases bicycles, \$677; 37 cases bicycle material, \$1,517.

London—2 cases bicycles, \$80.

The Retail Record.**CHANGES.**

Atlantic City, N. J.—Charles Singer, retired.

Marion, O.—Ryan & Brooks, succeed J. Hoods Lou.

Troy, Ill.—John C. Gebauer, succeeds Gebauer Bros.

Eugene, Ore.—D. B. Paine & Co., dissolved partnership.

Madison, Ind.—Preston C. Lewis, succeeds W. O. Lewis.

Glenwood, Ia.—Sharp & Gettler, succeed C. W. Rathke.

Detroit, Mich.—Francis J. Bowes, succeeds Bleasdale & Bowes.

McFall, Mo.—J. R. Tull, succeeds Louis Bros. Hardware Co.

Jackson, Mich.—Elliott & Birney, succeed D. A. Yocum & Co.

Wayland, Ia.—J. Wenger & Co., J. Wenger has sold his interest.

Nichols, N. Y.—Elmer Ellis, will build a larger shop on the present site.

Haverhill, Mass.—Pentucket Cycle Co. has purchased business of Chas. A. Senter.

West Rutland, Vt.—Harry Cummings will remove to Campbell Building, Marble street.

Los Angeles, Cal.—E. R. Ridsen Cycle Co., 452 S. Broadway, succeeds to the retail business of the Avery Cyclery.

Los Angeles, Cal.—The E. H. Crippen Cycle and Supply House succeeds to the wholesale and jobbing business of the Avery Cyclery.

The Week's Patents.

No. 659,648—Sheet metal wheel. Rudolf Chillingworth, Nuremberg, Germany. Filed July 18, 1899. Serial No. 724,323. (No model.)

No. 659,653—Automatic pump for bicycles. Charles J. Dowling, Chapman, Kan. Filed June 19, 1900. Serial No. 20,841. (No model.)

No. 659,673—Air admission and check valve for pneumatic tires. Edward W. Holt, London, England. Filed June 8, 1900. Serial No. 19,599. (No model.)

No. 659,701—Pneumatic tire. Robert P. Scott, Cadiz, Ohio. Filed July 20, 1900. Serial No. 24,322. (No model.)

No. 659,713—Change speed gear for cycles. Leon Stilmant, Brussels, Belgium. Filed November 13, 1899. Serial No. 736,755. (No model.)

No. 659,730—Air extractor for pneumatic tires in construction. Augustus E. Ellinwood, Akron, Ohio, assignor to the Goodyear Tire and Rubber Company, same place. Filed March 7, 1900. Serial No. 7,653. (No model.)

No. 659,731—Bicycle handle bar. Michael J. Flynn, Hartford, Conn., assignor to Ann Flynn, same place. Filed June 1, 1900. Serial No. 18,722. (No model.)

No. 659,833—Bicycle. Harry J. Smith, New York, N. Y. Filed September 12, 1899. Serial No. 730,233. (No model.)

No. 659,908—Anti-slipping attachment for vehicle wheels. Boyd K. Appleman, Rohrsburg, Pa. Filed February 14, 1900. Serial No. 5,160. (No model.)

No. 659,920—Rubber tire. Arthur W. Grant, Springfield, Ohio, assignor to the Consolidated Rubber Tire Company, New York, N. Y. Filed March 23, 1900. Serial No. 9,945. (No model.)

The word **"STANDARD"** signifies the

HIGHEST ATTAINABLE.

Our material
exemplifies a

STANDARD

in bicycle construction.

Your Orders Will Have Our Prompt Attention.



New York Branch
94 Reade St.

**The Standard
Welding Company**

CLEVELAND, OHIO.

What's the Time.

A booklet with this title, just published by the Chicago, Milwaukee and St. Paul Railway, should not only be in the hands of every traveller, but should have a place on the desk of every banker, merchant or other business man.

The four "Time Standards" which govern our entire time system, and which are more or less familiar to most of the travelling public, but by many others little understood, are so fully explained and illustrated by a series of charts, diagrams and tables that any one who chooses can become conversant with the subject in question. There are also some twenty-four tables by which almost at a glance, the time at any place being given, the hour and day can be ascertained in all the principal cities of the world.

A copy of this pamphlet may be had on application to Geo. H. Heafford, General Passenger Agent, Chicago, inclosing two-cent stamp to pay postage. ***

Can't be too Handy.

When the user of a motor vehicle wants a repairer he wants one badly, and on the spot as well. At the present time the supply is inadequate, and will probably continue to be so for some time to come; and until the matter rights itself those interested will have to make the best of it.

The same state of affairs was formerly true of bicycles, although users of the latter were better off, for they could easily push or carry their machines to the nearest shop and there have them put to rights. But it is very different with the majority of motor vehicles. In certain circumstances a repairer a mile or two down the road is almost as bad as none at all. A "dead" machine is a pretty ugly proposition.

STANDARD SPOKE & NIPPLE CO.,

Torrington, Conn.

Spokes and Nipples

for Bicycles, Motorcycles and Automobiles.

Chicago Office,
40 Dearborn Street.

AUTOMOBILES
WHAT ARE THEY AND
WHAT WILL THEY DO?
Is completely answered without the aid of technical language and a reliable
discovery of makers of motor-vehicles and their parts is given in a special number of
THE MOTOR AGE
THE AUTOMOBILE AUTHORITY OF AMERICA
324 Dearborn Street, CHICAGO

FOR SALE AND WANT COLUMN.

(15 cents per line of seven words.)

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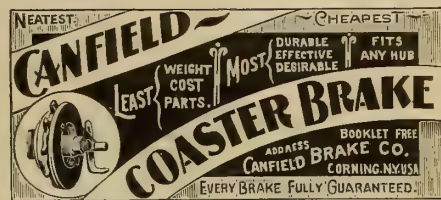
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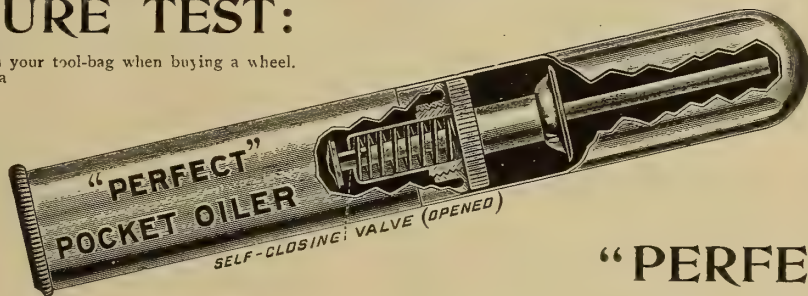
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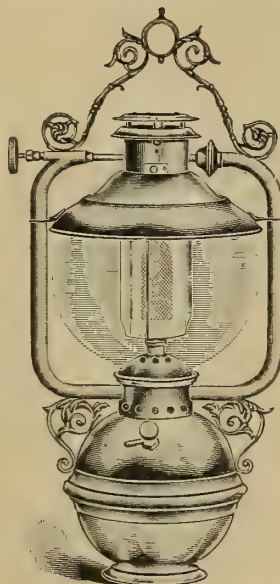
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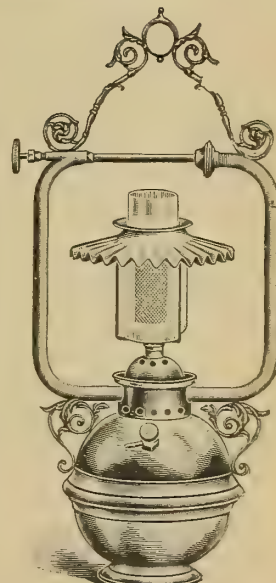
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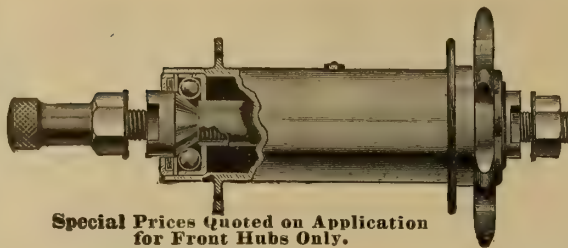
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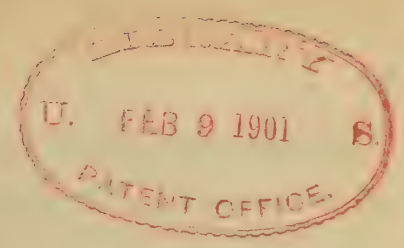
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The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., November 1, 1900.

No. 5.

TORKELSON STEPPED ON

**Court Rules Out Another Famous Patent—
Says Device Involved no Great Skill.**

Unless an appeal is taken to a higher court, the Torkelson step patents will disappear from view, and what promised to be an important factor in the trade will be heard of no more.

The sweeping decision rendered last week by Judge Lowell, sitting in the United States Circuit Court at Boston, has been awaited since early in June. On the 3d of that month came the final hearing and arguments. Then Judge Lowell took the case under advisement, reserving his decision. This was given last week, and resulted in a crushing defeat for the plaintiff.

The suit was brought by Theodore A. Dodge against the Lamb Mfg. Co. et al., of Chicopee, Mass., and was for an accounting and an injunction to restrain the defendants from the alleged infringement of patent No. 426,402, for improvement in bicycles, granted to J. B. McCune and J. L. Yost, assignee of the inventor, R. T. Torkelson, on July 26, 1890, and now owned by the plaintiff. The infringement is alleged to be upon the claim for a mounting step.

While the Torkelson step has been in general use on bicycles under licenses, said Judge Lowell, and the Court thinks that the claim of the patent in suit describes a device which is eminently useful, yet it holds that it is only within the capacity of an ordinary skilled mechanic to evolve from the prior art.

The bill was therefore dismissed, with costs.

Crawford Prices Public.

The American Bicycle Co. has finally set its prices for 1901, but it is understood that they will not be officially promulgated until late in the present month. The price of Crawford bicycles are, however, already available. The men's and ladies' wheels will be made in two models at \$25 and \$35 respectively. Last year they were made in three models at \$25, \$30 and \$40. It is understood that the \$35 model for 1901 is the same as this year's \$40 wheel.

Five Cents on the Dollar.

Creditors of the Beacon Cycle Manufacturing Company, of Westboro, Mass., will receive a dividend of 5½ per cent of their claims. The latter amounted to \$48,544 60, and the amount available for distribution is \$2,791 02.

These figures are shown by an entry made last week in the Massachusetts Supreme Court, at Boston, in a bill in equity of S. L. Whipple et al., assees., vs. Beacon Cycle Manufacturing Company of Westboro. Decree of Court of insolvency ordered vacated and new decree ordered entered by the Court of insolvency by decree filed.

The new decree, approved by Justice J. M. Morton, of the Supreme Court, orders distribution of the estate of the Beacon Cycle Manufacturing Company in the hands of the assignees, after first allowing S. L. Whipple, in addition to \$250 allowed him on assignees' first account, which allowance is hereby confirmed, the sum of \$150; also to E. C. Bates, in addition to what was allowed on first account, the sum of \$200.

The Beacon Cycle Manufacturing Company occupied the old White Flyer plant at Westboro some four or five years ago. Misfortune overtook it, and it was forced into bankruptcy. The creditors are scattered all over the country.

Tire Deal Hangs Fire.

The tire manufacturers dealing with unguaranteed tires got together in Akron last week, but for legal reasons it is stated that final papers binding the agreement were not then signed. This action was, it is understood, deferred until a meeting in New York, but nothing definite can be learned; everyone concerned has closed up tight.

Dayton Line and Prices.

The Davis Sewing Machine Co.'s line for 1901 will comprise the following models: Dayton roadster, men's and women's, \$40; light roadsters and racers, \$50; bevel geared chainless, with cushion frame and coaster-brake, \$75; diamond frame tandem, \$75; combination tandem, \$80.

Outing's Bankruptcy Petition.

An involuntary petition in bankruptcy has been filed on behalf of the Outing Mfg. Co., of Indianapolis, Ind., which assigned a short time ago.

BRETZ-STEARN'S PLANS

**New "Yellow Fellow" Under New Name
Coming—Frazer & Jones's Line Taken on.**

In addition to the Wolff-American, the newly formed Bretz Cycle Mfg. Co., of Syracuse, N. Y., will bring out a new model on Stearns lines and finished in the familiar Stearns yellow; it will be called the Regal, and be made in two models, listing at \$50 and \$40, respectively.

It will, of course, be marketed through the Stearns Bicycle Agency, of Syracuse, which has also arranged a deal to market the Frazer & Jones Co.'s line of juveniles, that is to say, while Frazer & Jones will be open to make contracts, as usual, they will send out no travellers, the Stearns Agency taking over that detail.

Got Award and Interest.

Smalley bicycles, which dropped out of sight a number of years ago, were the basis of a suit decided at Los Angeles, Cal., last week. The case was one brought by E. J. Hinman against Burke Brothers on an assigned claim for over \$2,000, on account of the delivery of a lot of Smalley bicycles. The jury returned a verdict for the plaintiff in the sum of \$600 and four years' interest, amounting to \$768.

Managers Talked All Week.

The A. B. C. sales managers' session in this city lasted all of last week. They talked prices and policy, but nothing concerning their doings was made public. The exclusive publication of the prices and particulars of the Rambler line in last week's Bicycling World gave the managers something to talk about when not otherwise engaged.

Balance on Wrong Side.

At Columbus, Ohio, last week, M. P. Grandstaff, receiver of the Columbus Bicycle and Typewriting Company, filed a report showing that he has collected \$1,295.69. He says the creditors presented claims to him amounting to \$3,435.23. From the funds collected he has paid out \$54.46.

FORGING AHEAD IN FRANCE

Motorcycles Leaving the Automobile Behind in the Race for Popularity, and Why.

Paris, Oct. 16.—The motorcycle is going ahead in a way which reminds one of the early boom of the bicycle, when orders flowed in on makers, who sold as many machines as they could turn out and netted huge profits until such time as a slackening of business suggested to them the advisability of making it over to highly capitalized companies.

The trade in motorcycles may not be so big as that done during the palmy days of the bicycle industry, but it is growing at an astonishing rate, and the profits upon motor machines are so considerable that the cycle maker has every reason to be pleased with the change that has come over the public taste. Many a concern has risen from its ashes, and many a maker has turned the corner when he added motorcycles to his stock. The motorcycle has infused new life into what threatened to be a moribund industry. In Paris tricycles are met with everywhere and are used both for business and pleasure. Tradespeople have them, as they not only find the machines a good advertisement, but they are very serviceable as carriers, and there is nothing more effective for attracting attention to the advertisement than the practice of letting the exhaust escape freely in a succession of loud pops, instead of stifling it in a silencer. The practice is a bad one, no doubt, in so far as it worries the public, but it will be continued until such time as something is done to compel owners to fix silencers to their machines.

While the motorcycle is becoming so popular, the big automobile is moving much more slowly, in a figurative sense. In practice its movements are perhaps a little too rapid. It is not that the automobile is losing any hold upon users, but at present it only appeals to a special class who can afford the time and money to possess and use these expensive machines, and this circle of buyers is not increasing at the same rate as the production of motor vehicles. They are employed largely for commercial purposes, but makers have to appeal chiefly to private buyers, who, now that they have plenty of cars to choose from, are not disposed to pay fancy prices for the privilege of getting early deliveries, as they did some time ago. Again, many people who can afford to buy high priced cars prefer to purchase motorcycles, which may serve their purpose equally well. The result of this change is seen in the number of second hand cars on the market. Last week several vehicles of the best make were put up for auction, when they only

reached an eighth or a tenth of their value. Probably buyers may not have been inclined to acquire cars on the threshold of winter, and it is possible that the sale may not have been sufficiently advertised; but these extremely low prices are none the less significant. They would certainly not have gone for such figures a year or two ago.

There are several things which account for the popularity of the motorcycle. Its price brings it well within reach of the man of ordinary means, who also finds that he does not have to pay much for the storage of the machine, for maintenance and repairs, and it is not necessary to keep a man to look after it. If the owner of the car is not of a mechanical turn of mind, and is not able to carry out any small repairs himself, he must have a mechanic; but any one of ordinary intelligence can master the intricacies of a motorcycle, can give attention to the electrical ignition if required, replace worn out pieces, and, in a word, learn to take care of it as easily as he would an ordinary bicycle. Besides this, the old cyclist has a liking for the motor machine. As he gets older he feels a temptation to save himself muscular effort, and the motor is just the thing he wants.

Another thing in favor of the machine is that users are beginning to see that the voiturette or quadricycle, or even the tricycle with the trailer, does just as well as the heavy car for ordinary touring purposes. If a man can travel with one companion at a fair speed he is quite content with the motorcycle. He does not need to carry any heavy luggage or a big store of gasoline. He can send the one to his destination by train and can purchase the other in the smallest towns along the route. The tricycle may not travel so fast or go so far as the carriage in a day, but it will do enough to satisfy any reasonable tourist. The motorcycle thus appeals to a very big class of buyers, whose numbers are swelling every week, and if there is a heavy demand for motorcycles just now it is bound to go on increasing enormously in the future.

Dunlop Adds a Single Tube.

The single tube tire has driven an entering wedge into the all-powerful Dunlop Tire Co. of England.

After fighting them tooth and nail for nearly ten years, that big concern announces for 1901 not only a single tube racing tire, but illustrates it attached to a wood rim; they call it "a single tube sprint path racing tire," and say it "can be used on the best paths only."

While the announcement is of an almost sensational nature, it is made in a small way, and the press passes it with little or no comment.

The grass racing Dunlop tire has been withdrawn, it being considered no longer necessary, now that the road racing tire has been lightened, the four weights listed for 1901 being roadster, road racing, path racing and the single tube sprint racer.

BANKER TALKS MOTOCYCLES

Exchanges Ideas with Michael and Says Motor Troubles are Greatly Exaggerated.

The conversation had been chiefly about cycles and cycle racing, with an occasional departure into the realms of horseflesh. These topics exhausted, it drifted into motors, and an instructive discourse followed and was listened to with interest by the *Bicycling World* man.

"Why haven't you taken to the motors before this?" Arthur Banker inquired of "Jimmy" Michael.

"Oh, I have troubles enough of my own," replied the Welsh midget. "My own machine is enough for me to look after, without taking a bigger contract on my hands. I think I'll leave the motors to those who have had experience with them."

"I don't know but what you are right, and that I have let myself in for a lot of trouble now that I have started to take a hand at the motor game," remarked George Banker, tentatively. "There is so much about the machines that can go wrong that I suppose I'll have my share of trouble."

"No, you won't," replied Arthur, to whom attention was paid as the best posted man of the party when the subject of motor vehicles was under discussion. "You have only got to understand your machine and then give it proper attention to have it run all right. Things will seldom go wrong, and when they do they are easily put to rights if you know how to go about it. Of course, if you are careless and don't look after the machine it will give trouble, but seldom otherwise."

"In all the riding I have done on motor vehicles—and I have done a lot of it in the past year—I never was stalled but once. You remember that time, George," he continued; "it was last winter, and we had filled the tank with a supply of poor gasoline—only 68 degrees test. Since that time I have always used 76 degrees test, and never have any trouble. That and another time when I had an axle sheer off form the sum total of my serious mishaps."

"I use a machine pretty hard, too," he went on. "Pittsburg roads are nothing to boast of and the hills are terrors. Yet I plug along at a thirty or thirty-five mile an hour gait and think nothing of it. On special occasions I get 'way beyond this, and I have taken some turns at speed that made my hair stand on end. Indeed, my machine is so severely shaken up on some of my rides that one of my chief troubles of a small nature is the breakage of sparking plugs. The jolting breaks the porcelain, and that's an end of them."

"The stories you hear about the excessive trouble motors give," he concluded, "are either greatly exaggerated or else the fault is to be laid to the door of the user."

This spontaneous testimony possesses all the more value because of the experience Banker has had. He has used pretty nearly everything extant in the motor vehicle line, from the Werner bicycle, through the tricycle and quadricycle up to carriages of many descriptions.

VERY AGAIN VICTORIOUS

Interesting Decision Involving Officials' Salaries—Echo of Warwick Failure.

Under a decision of the Massachusetts Supreme Court, Judge Holmes presiding, last week the claim of A. O. Very, late of the Warwick Cycle Manufacturing Company of Springfield, Mass., which was allowed by the Superior Court, has been confirmed. Consequently, Very's personal creditors will benefit by this decision, at the expense of the creditors of the Warwick Company, the receiver of which was fighting the claim.

The case is rather a complicated one. Very claimed that money was due him for salary as an officer of the Warwick Company. The claim was disputed by the receiver of the latter concern, on the ground that Very's firm in New York was indebted to the company, and that this indebtedness should be paid before Very's personal claim was settled. Very won his case some months ago, after a hard fight, but the defendants immediately appealed to the Supreme Court. The latter now decides against them, on the following grounds:

This is a petition by a creditor, Very, to prove a claim against the Warwick Cycle Manufacturing Company in insolvency. Very, as well as the cycle company, is in insolvency, and his claim is pressed by his assignee. The company seeks to set off a larger debt due to it from a New York partnership, of which Very was a member. The partnership also is insolvent, and the other member has disappeared, but its affairs have not been brought into the Massachusetts Insolvency Court. The Judge of the Superior Court, before whom the case came by appeal of the creditor, Very, allowed the claim and disallowed the set-off, and the assignees of the cycle company appealed to this Court.

We are of opinion that the Judge of the Superior Court was right. There is no doubt that, apart from insolvency, the set-off would not have been allowed. The general rule is clear, and the insolvency of all the parties does not raise an equity in favor of the creditors of the cycle company which is superior to the right of Very's personal creditors to have his personal assets applied to the full payment of their claims before any part of them is used to pay the debts of the firm to which he belonged.

If the debt due from Very's firm to the cycle company were proved against his separate estate it would be only in subordination to the claims of his separate creditors, which in this case would exhaust his estate. Of course, Very's claim against the cycle company is a part of his personal assets, and if it is extinguished by setting off a claim against his firm it is applied to payment of a partnership debt just as much as

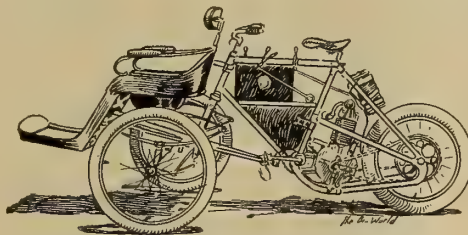
if the money were collected and then paid to the firm's creditors.

It is said that but for Very's insolvency the cycle company would have got a judgment against him separately, under Public Statutes, Chapter 164, Section 13, and thus have made his liability separate. So it might have contracted with Very alone in the first place. It is enough to say that it did not do so. Judgment affirmed.

Likely to Prove the Popular Type.

As the BICYCLING WORLD stated last week, in illustrating the Regas motor bicycle, one of the features that is of enormous value from a selling standpoint is its convertibility from bicycle to tandem tricycle form. The accompanying cut shows it so converted.

It is one of those simple ideas that the wonder is it was not thought of before. It effectually solves the perplexing question of storage, which in the larger cities is a highly important one, and one that must be reckoned with. The tricycle and quadricycle are too wide or too heavy to be carried down cellar or to be left in a hallway; but a bicycle to which the two-wheeled



front seat attachment may be coupled settles the question.

By removing the front seat attachment on the sidewalk it may be carried sideways through any door and be stored or suspended in any corner, while the bicycle itself may then be carried and stored wherever one will, as with the bicycle now in general use.

Aside from this, the fact that one may have a single track bicycle for one or a two track tandem tricycle for two, much lighter, and at the price now asked for the one seated tricycle is no small factor; this, coupled to the additional and also important fact that in tandem tricycle form the convertible bicycle is free from the differential and spur gears and other machinery and complications common to the tricycle and quadricycle, makes it seem certain that the convertible bicycle or convertible tandem tricycle, as one cares to term it, is the form of motorcycle that will attain the greatest popularity.

A. B. C. Working on Motor Bicycles.

O. E. Boles, manager of the American Bicycle Co.'s London branch, thinks the motor bicycle "has a great future ahead of it," and, according to an English paper, "fully expects that his company will have one on the market next season." The paper in question even makes Boles say that the A. B. C. is "busy on motor bicycles."

VARNEY, OF 'FRISCO, TALKS

Thinks 1901 will be a Record Breaking Year—Has Faith in Motorcycles.

San Francisco, Cal., Oct. 19.—"It's between hay and grass, and I don't know of anything newsy in our line to communicate at this time," was the remark made yesterday to the Bicycling World man by P. H. Bernays, Pacific Coast branch agent, Pope Sales Department, A. B. C. "See Varney; he's just returned from an observation trip East, and knows a lot of newsy thing he might tell you, I've no doubt."

Thomas H. B. Varney, who was seen at his Rambler and Waverley agency just in time to join him in an electric motor vehicle ride downtown, said: "These electric rigs are all right, and so I believe are the gasoline and steam carriages; anyway, I'm going to have these two additional lines in stock shortly, and also a line of motorcycles. I am here to cater to the people—all of them. There are on this coast all sorts of people—many men and women of many minds; and as it is their money they are going to spend I propose to have my house so equipped that they can come there and spend their money and take their choice. I believe it is possible to please all the people all the time.

"But don't understand me as of the opinion that there is going to be a great business doing on the coast the coming season in motorcycles and automobiles, but rather the contrary; but it is going to be a healthy growth all the same, though slow, but after a season or two, mark me! there's going to be something amazing in the business expansion in these motor lines.

"Was I unmindful of bicycles during my recent trip East? By a large majority, No! The season just closing, and my business year as well, are already known to have been great successes, surprisingly so in view of the fact that upward of fifteen thousand bicycles sold last year through the Rambler agencies of this city and Portland. Yet, notwithstanding all, I am expecting the first year of the twentieth century to prove our record breaker as a bicycle distributor. And so I was impressed the other day while visiting Eastern factories, where I left my initial order for several thousand wheels."

H. P. Smith arrived here this week from Cleveland, Ohio, where everybody knows him as captain of the Cleveland Wheelmen's Club. Without delay in this city he proceeded to San Jose, Cal., where he has been installed as manager of the Cleveland branch of Leavitt & Bill's San Francisco agency.

Another Eastern arrival this week is N. W. Church, of the Snell-Kirk Manufacturing Co. Yesterday he closed business arrangements with Leavitt & Bill as 1901 agents for the Snell machine in Northern California, and then left for Los Angeles on a business visit to E. H. Crippen, State agent for the Yale.

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NEW YORK, NOVEMBER 1, 1900.

Principle in Cycling Journalism.

On another page we devote considerable space to a journal which a stretch of courtesy makes it possible to style a contemporary.

We regret the necessity, but we feel that though they may appear in the light of a "newspaper fight," the facts presented are of some little concern to the trade.

The specific instances which we have cited, will, we think, bring home to many the evil of the too grasping paper that offers to print without change anything an advertiser may write about himself. We have shown how such papers make it possible for men without credit, without factory and without office or employees to pose as manufacturers, to get credit, to advertise largely and to write indorsements of themselves and their "manufactures," and have such indorsements appear verbatim as the opinions of the paper concerned.

To accept a trade quack's advertising is bad enough, but to permit him to use the

reading columns of a paper for self indorsement is contemptible—it is not journalism. When the quack and the reputable merchant are placed on the same level it is a sorry state of affairs. When both are accorded the same privileges, it is the quack that will make the most of them, and necessarily his every advance is at the expense of the reputable man. It shows the harm and mischief and injustice that is done by the "print anything for advertisers" type of journal.

Public prints owe it to society, or to the trades they represent, to discriminate between the true and the false. "Speaking with ten thousand tongues" they have latitude and audiences and responsibility beyond that of the personal man. The "gleam of gold" cannot be forever in their eyes, else they prostitute their profession, injure trade or society, and bring down contempt upon themselves.

This the "Cycling Gazette" has done, and that is why we hold it in contempt. How it was done is told in another column. We feel that all in whom the desire for truth, honor and sincerity in trade journalism is uppermost will join in our contempt and resentment.

We have uncloaked the Jandorf of cycling journalism. Having courted it, we hope the cycle trade will view the object with a critical eye and make its own deductions.

The trade journal that gives as much advertising credit and as much right to self-indorsement in its reading columns to the "firm" or "manufacturing company" of one, that "manufactures" at night in a back room or cellar, as it gives to YOU, is a sorry sheet—isn't it? And when that paper "plants" "pasters" and steals its "special correspondence," it couldn't be much sorrier—could it?

The Jandorfian journal in question is now ta bay, its throat is full of tears and it seeks sympathy. But can there be real sympathy for one so despicable and so false to the trade and to itself?

We do not wish to appear as if engaging in a "newspaper fight," for this is something more than a "newspaper fight."

It is a question of principle—a question of the right way or the wrong way, a question whether decency or indecency, the true or the false, in trade journalism is most desired by the cycle trade.

The Moral is Plain.

While the cables from their birthplace, France, teem with news of automobiles and

automobilism, and make it appear that Paris and all France have gone mad on those subjects, the letter from our Paris correspondent in another column tells a somewhat different story.

While the automobile has been holding the center of the stage, so to speak, and while little has been heard or said of the motorcycle the latter has gathered force, has forged ahead, and is already in the commercial ascendancy.

The French cycle manufacturers placed themselves in position to reap the reward and are now reaping it.

Our Paris correspondent states the case so well that we commend it to the careful consideration of the American trade.

What has happened in France will happen here as surely as the sun rises and sets.

Competition is Welcomed.

Next to too much competition, most manufacturers and retailers dread too little of it.

Indeed, if it were put to a vote it is dollars to doughnuts that an overdose of competition would carry the day when pitted against a lack of it.

There are some trades and tradesmen that are fortunately situated in this respect. A happy mean is preserved between the supply and the demand, the former absorbing the latter without any necessity for a beating of tom-toms or a blare of trumpets to encourage customers to buy, and to buy of the right people.

But such instances, unhappily, are very rare. Either there is so much competition that selling costs increase until they wipe out profits, or a deadly dulness hangs like a pall over the industry and permeates every crack and crevice of the structure.

When beset by the former those interested bewail the fact and sigh for a directly opposite state of affairs. Yet were their desires possible of attainment their dissatisfaction would only be increased.

It is a fact, singular as it may appear to be at first sight, that by none is competition in the motorcycle game more earnestly desired than by those most interested and having most at stake. They well understand the stimulating influence competition has on trade, and they are ready to welcome and even invite it.

Human nature is the same the world over, and the success that is writ large will continue to grow and expand simply because it is a success. Conversely, if it does not

burst its bounds from excessive growth, an article is apt to get a black eye, the mass looking at it askance.

Therefore, the steady growth of the motorcycle industry is looked upon with marked approval by those who started in earlier. It is felt that there will be room for many more than those in the field even now, and to each recruit is, in the vernacular, extended the "glad hand," while the "marble heart" is conspicuous by its absence.

Already the result has justified the remark of a prominent manufacturer, made some months ago:

"One concern cannot make motorcycles a success, nor two or three. It will take a number of them, and for my part I welcome each addition to the ranks, provided the concern has standing and proposes to make good goods."

Even the retailers are awake to the truth of this remark. They see the uselessness of hoping to gobble all the trade or of accomplishing everything themselves. Two dealers in a town can sell more than twice as many machines as one, because if only one handles them the other will discourage purchasers in every way possible.

"When trade opens next season," said a dealer who has made a specialty of motorcycles, "we shall sell more than ever, because of the increased competition. Nearly every dealer will be pushing such machines, and the public will soon be convinced that the thing is a go. Then they will buy more quickly, and we will all reap the benefit."

This is unquestionably the keynote to the situation, and the more generally dealers take up the sale of motorcycles the greater will be the sales.

Fading of the Fads.

The gradual disappearance of the freak-ists—which, by the way, has been but little commented on—has brought about a saner fashion in cycle designs.

The weird creations which were formerly as thick as leaves in autumn on all the roads frequented by wheelmen are now seldom seen. One can wander far afield and not encounter more than one or two in a day's ride.

The change is a welcome one, it must be admitted. Such riders undoubtedly did the pastime more harm than good. Their influence on construction was almost wholly bad. They did little in the way of improving the bicycle; they merely took a feature that was good in itself and carried it to such an extreme that it had no virtue left.

They were extremists in every sense of the word. Change for the sake of change was their watchword, and it made little difference to them what direction it took. The fact that it was a departure from accepted standards was sufficient for them.

Yet with all their efforts they rarely carried the bulk of the trade with them. Excessively short heads, low crank hangers, wide and low handle bars, low frames and other fads for which they evinced a fondness never became standard; they remained fads, whose ephemeral existence served no good purpose.

There is plenty of room for originality in cycle construction even now. But deviations from accepted standards must have more to recommend them than had the fads referred to.

Help the Retailer.

Once more it is the unexpected that has happened.

Just when the trade had about settled down to the belief that next year's patterns would undergo little or no change, it transpired that just the contrary was to be the case. Weight reductions—long predicted but never forthcoming—are at last to materialize.

Just how far these reductions will go or how general they will be it is impossible to say at present. But it is sufficient to know that a start is being made, and upon the reception it meets with will depend the extension or retrenchment of the movement.

One thing is already apparent: The retail trade wants lighter weights, and if given them will lose no opportunity to exploit them. They constitute what has long been wanted—a talking point.

In the past, talking points were both lauded and condemned; and, unquestionably, they were overworked. But they served a distinct purpose, and this alone justified their existence.

Deprived of them, and disheartened by a steadily falling market, the average retailer lost his enthusiasm; successive bad years bereft him of heart and hope. He hung on, frequently because he did not possess sufficient energy to make the effort necessary to quit.

He was constantly told that there was no reason why bicycles should not become cheaper every year; there was nothing new about them, and this year's pattern was worth no more than last year's; in fact, not as much, for it cost less to produce.

This was said so often that the dealer finally came to believe it. He had no arguments with which to combat the theory; his machines were the same each year, and there was nothing to do but to hold his tongue when the charge was made.

With light machines, however—or, for the matter of that, with any other real novelty—he will once more be able to take the offensive.

He will be willing, even anxious, to compare the new pattern with the old; to show the difference, point by point, between them. His tongue will be loosened and he will descant upon the beauties of change in the old, familiar manner.

This change of front is what is needed more than anything else. The buying public takes its cue from the retailer, and as long as the latter admits that there is nothing new it is futile to expect any change in the present feeling.

The key to the situation is held by the retailer. No better stroke of business could be made than to inspire him with confidence by giving him something to sell that has novelty as well as merit.

In the same mail last week the Cycling Gazette received two communications of a sort common to most trade papers, but so unusual to the Gazette that it reproduces them in full. One asks that a sample copy be sent abroad; the other, from a prospective buyer, courteously requests the addresses of manufacturers of chainless bicycles—a request of the sort quite common in commercial and journalistic life. It was too unusual for the Gazette, however. It publishes its reply, doubtless because it is proud of it. Most people, however, will agree that it is merely discourteously Smart Aleck-like. Instead of helping trade by giving the addresses requested, it tells the intending purchaser that manufacturers must be advertising in the Gazette before they will supply addresses. It is another incident that goes to prove that the Gazette's nickname, "the Cycling Galoot," is well bestowed.

Rack owners are wondering why the campaign against them has been halted. The time left before the expiration of the design patent is very short—only a few months—and yet not a hand is being lifted to persecute—or prosecute—them. Either the results already accomplished are deemed sufficient or the case is considered too weak to risk a determined fight on it.

SMITH OF NEW BEDFORD

His Development from a Racing Man into a Successful Retailer.

Five or six years ago there were few names better known or oftener in print than Hoyland Smith, or few more interesting characters than the man himself.

At that time Smith was one of the first fighters of the racing world, and one always to be reckoned with. He was also the oddest appearing man on the track. All of six feet in height, and loose jointed, he

the result of his ten years of cycle retailing, and, more than this, he has been abroad and toured a wheel and obtained some pleasure withal.

He now handles Orients, Yales, Cleavelands, Crescents, Stearnses, Warwicks and Spaldings, and says he has had a good business during the past year, and considers the outlook better than it has been for quite a while.

Like most enterprising dealers, Smith is interested in motorcycles, as his portrait makes plain. He was the first in New Bedford to own and use one, and is ready for that development of the business whenever it attains force.



HOYLAND SMITH.

weighed but 110 pounds, and when he appeared on the track, wearing his familiar skullcap, it was seldom he failed to provoke a laugh and to deceive the unknowing. He had a drawl and a fund of good nature, however, that never failed him, and accepted his popular nickname, "the human skeleton," in perfect good humor.

Then, as now, Hoyland had a cycle store in New Bedford, Mass. When he retired from the path and settled down to business the man and his business both expanded, as the accompanying illustration bears witness. His big plate glass store in New Bedford is a tribute to his hard headedness and ability. At twenty-nine, Smith is generally reputed to have a comfortable nest egg, as

Boon to Acetylene Lamp Users.

The annoyance of frozen water in acetylene lamps during the cold season is known by experience by riders who use their machines much during the winter. A simple remedy, designated as "anti-freeze powder," has been introduced by Albert H. Funke, of 101 Duane street, New York. When dropped into the water reservoir of a lamp the powder is said to be an effective preventive. The powder in no way injures the lamp or affects its burning qualities.

Queer! We Have no Such Trouble.

Thanks to free wheels and strong brakes, says an English paper, the tire people are having an uncomfortable time with their guarantee for twelve months.

TESTS OF BRITISH BRAKES

Some Odd and Unaccountable Results Viewed from an American Standpoint.

Study of the braking contest recently conducted in England can scarcely fail to cause some surprise at some of the results.

One is led to conclude that either the coaster-brakes used were of a mediocre quality or that the English rider demands a stoppage power far in excess of any ordinary requirements.

The front wheel brakes used—mostly either spoon or rim—gave excellent results. They stopped the machines in short order, although at some cost to the forks and other essential parts. But this was no more than was to have been expected.

The performances of the rear wheel brakes, however, were much less satisfactory. Three and four times the distance run by the machines in the front brake tests were covered before they could be brought up in the former case. None of the machines came anywhere near approaching the performances of the front wheel brakes.

As nearly all makes of brakes were used in the contest, the poor results cannot be explained on the score of non-representation of the best. Furthermore, as at least two well known American devices were among the competitors a basis of comparison with the English makes is at hand.

This comparison does not lessen the surprise. No machine was brought to a stop in less than 32 feet, and most of them ran from 50 to 100 feet before their progress was entirely checked.

This is almost incomprehensible. Experience has shown that such devices as the Morrow, New Departure, Canfield and others possess ample braking power to meet almost any emergency. With them it is possible to apply the brake so sharply that the rear wheel will lock, causing the tire to slide along the ground. This can be done in a few feet, no matter how fast the machine may be going; although, of course, the tire will be torn loose or some other damage will be done if the speed is very high.

So effective are the devices referred to that it may be stated broadly that a machine can be stopped at any time within five yards if the rider will apply sufficient power. He may be deterred from doing so by fear of causing damage, but if this thought did not operate—and it would not to any great extent in a braking contest—it would not be easy to set limits to his capabilities in this direction.

Certainly, a coaster-brake device would be quite as effective as either a rim or a band brake. In each of them the danger of wrecking the tire, wheel or frame would be the same; yet marked variations were recorded in the contest under notice. It is exceedingly difficult to reconcile them.

Nor is the English aversion to back-pedal-

ling brakes any more understandable. Here they have been found eminently satisfactory; not perfect, of course, but far in advance of anything that has yet appeared in the shape of a brake. Effectiveness and reliability are their distinguishing characteristics. The change effected by their introduction has been little short of marvellous. Machines fitted with them are under almost absolute control.

Across the water, however, they are frowned upon in most quarters. In the few cases where they are recommended the use of an auxiliary brake is strongly urged. Indeed, it is generally asserted that it is the height of foolhardiness to ride a machine fitted with a back-peddalling brake alone.

Nothing could more graphically portray the difference between the riders of the two countries.

Clever Work of Clever People.

To some of the crispiest, snappiest folders and circulars that have seen the light in some time, the Wisconsin Wheel Works, of Racine Junction, have added a more enduring advertising souvenir—an aluminum gear table of vest pocket size that is worth asking for, which, in fact, is true of the company's other advertising matter. It is so smartly written as to be more than usually readable and is the sort that leaves impressions.

The Wisconsin Wheel Works is a big company composed of big people. They have the men and money to stir trade and are bent on doing it. Their Mitchell bicycles at \$25, \$30 and \$35 are attractive values and merit the inquiry of any dealer who is open to conviction.

Praise that Means Something.

While envious foreign papers are sniffing at American products and principles, letters like that from Klaas Baving, of Zwolle, Holland, to the G. & J. Tire Company, reproduced on another page, are worth tons of type argument. It is a letter of which any house might well be proud, and demonstrates that good goods backed by the right policy will make friends wherever they may go.

Shorter and More Appropriate.

It has been voted to change the name of the International Union of Bicycle Workers and Allied Mechanics to the International Association of Allied Metal Mechanics. The new name is claimed to be more appropriate as well as shorter.

Executions Against Johnson.

Executions were filed at New York on Tuesday against the George R. Johnson Company, which recently assigned, for \$153 and \$32, by the Twentieth Century Manufacturing Company and the B. F. Goodrich Company, respectively.

The Veeder cyclometer was the only one awarded a gold medal at the Paris Exposition—a fact that is pleasant to record, but one that will cause small surprise to those who know Veeders.

HIGH POWERS AND VIBRATION

Two Factors Affecting Motorcycles—Chance for Cushions and Spring Frames.

London, Oct. 10.—For the next few weeks there will be little to report as to the progress of the motorcycle in England. As a matter of fact, a great deal of the space at both the Stanley and the National shows will be occupied by motors—mostly the productions of firms well known in the cycle making industry—and many hints are being dropped of the wonders which we are to see, but "blessed are they that expect nothing."

Personally I hardly anticipate anything very new, because at the present time we are rather in the transition period here, and everybody is copying the French ideas. Beyond a few monstrosities in the h. p. line and minor details as to the position of the motor, etc., I do not expect anything very startling, notwithstanding the nods and winks of the knowing ones. It is, however, possible that a very great number, comparatively speaking, of the motor tricycles on view will have engines of high power, because there is a certain class of motorists and would-be motorists whose sole delight it is to boast about the h. p. of their machines. It is, in fact, a fashionable craze to possess a motor of high power, totally regardless of the fact that the owner is never allowed to show off the capabilities of his mount on account of the speed limit; but this, on the other hand, is sometimes a merciful dispensation, for half the buyers would not be able to drive these high powered machines with any degree of safety to themselves, not to mention the public.

This being the case, it is almost hopeless to look for genuine improvements, and the alterations for alteration's sake will most probably merely take the form of placing the cylinder either horizontally or vertically. At the present moment opinions seem to be divided on the point as to which type is preferable, and I am inclined to think that there is very little in it either way.

What is wanted before the motorcycle can assume its proper position in public favor is a reduction of the noise, which is almost always an accompaniment of this class of motor. This is almost entirely owing to the fact that the gear wheels do not fit really well. Moreover, few riders seem to realize the importance of keeping the gear wheels in close contact. Indeed, I have this week seen two samples of machines made by a well known cycle making firm in which no adjustment for the wheels of the gearing was allowed, the motors being absolute fixtures upon the frames. This means that the riders are exposed to a great deal of vibration which could be prevented. In this respect the motor manufacturers might well take a leaf out of the book of one or two cycle making firms who are about to bring

out flexible frame cycles and similar monstrosities.

But the spring framed motorcycle is quite a different thing, because any slight loss of power can easily be made up by a slightly larger motor, while the absence of vibration would prove a great comfort to the rider.

The possibilities of spring frames in this direction do not yet appear to have been fully grasped. Perhaps, however, there are one or two surprises in store for us in this connection, which will be on view at the shows; but so far manufacturers are very reticent.

Why Waltham is Proud.

Four years ago if anyone had dared prophesy that forty miles within the hour was possible, he would have been viewed as a semi-maniac. Gradually, however, the accomplishment has been brought nearer and nearer, and on Thursday last, October 25, it became a fact. It will surprise no one that it was done on an Orient bicycle.

The Orient people have had "40 miles in 60 minutes" in their eyes for quite a while. For several weeks they have had Will Stinson camping on the Brockton (Mass.) track. He banged at it several times and on Thursday he did it on an Orient Leader. He not only reeled off the forty miles but 330 yards for good measure. It was a marvelous performance. When it is realized that every mile was ridden under 1:30 the wonder of it can be better appreciated.

The conduct of the Orient motor tandem which paced him was as splendid as Stinson's performance. It ran the forty miles without hitch, skip or falter.

Can anyone blame the Waltham Mfg. Co. for pluming itself?

Where There Will be Trade.

Have American makers and exporters made preparations to take advantage of the opening that is sure to present itself when the long drawn out war in South Africa comes to an end? There will be business done there, and we might as well have our share of it. The same opinion is entertained by the English trade, as witness this query from an English journal:

"The war is practically over in South Africa. Have the English cycle makers prepared themselves for the rush which is inevitably bound to take place there when things have settled down, as they will, so far as trade is concerned, in the course of a few weeks? Or are they going to allow the Americans and Germans to dump down enough cycles there to flood the market to the exclusion of British made articles?"

Jochum Goes with Funke.

J. A. Jochum, the well known traveller, has engaged with A. H. Funke to represent him on the road. He will, of course, carry the Baldwin, Full Moon and Autolite gas lamps and the other sundries which are included in Mr. Funke's accounts.

MATTER OF MEN

Machines Made Spokes for American Workmen, but Failed With British.

It was not until the defence began to be heard from—after the trial had been in progress for seven days—that the Brown-Capewell suit, now being tried at Hartford, Conn., with \$150,000 damages claimed, reached an interesting phase.

The case of the defendants has now been developed sufficiently to show that the claim will be made that the spoke-making machines shipped to England were practicable and that the fault lay with the British workmen who attempted to operate them. This line of defence was generally expected to be advanced, and in its development a visit was arranged to be made to the shops of the American Specialty Mfg. Co., Hartford, Conn., where machines claimed to be identical with those sent to England were in successful operation.

Just before the defence started their inn-ing a number of British workmen were called to the stand. They testified to their inability to make spokes with the machines. In rebuttal of this the defence introduced testimony of other workmen, Americans, who had actually made spokes with the machines before they were shipped across the water.

On Friday George J. Capewell, one of the defendants, took the stand and was under direct and cross examination from the time court convened Saturday morning until the time it adjourned in the afternoon. On his direct examination he said that the machines over which the controversy is raised were practical.

On the opening of court Monday morning the lawyers for the defendants moved that the annual statements of the American Specialty Manufacturing Company, which had been introduced by the plaintiff's lawyers on Saturday, be stricken out on the ground that the statements were not properly in evidence. Judge Eggleston argued the motion in behalf of the defendants. At the close of his argument Judge Townsend decided that the statements were not properly in, and he told the jury that none of the matter contained in the statements should have any weight in arriving at a verdict in the case.

The testimony introduced in behalf of the defendants Monday was of a character to show that the machines which were sold the plaintiffs for the manufacture of bicycle spokes were practical, and that the trouble with them at the plaintiff's factory in England was that there was no mechanic there of sufficient ability to operate the machines, and consequent trouble resulted because of improper adjustment of the machines and improper material used by the plaintiffs.

W. G. Allen, one of the defendants, was examined during the day. He said that mechanically the machines were all right

and that they were capable of making about 8,000 spokes a day. The machines which were sent to England were tested here, and there was no trouble with them.

Judge Eggleston asked him if he was willing that the jury go to the factory of the American Specialty Manufacturing Company and see similar machines in operation. Mr. Allen said he was willing. Judge Eggleston then made the offer to the plaintiffs' lawyers that the jury go down to the factory. Lucius F. Robinson said the machines were not the same as the ones in England. In reply to a question from Judge Eggleston, Mr. Allen said they were exactly the same kind of machines. Mr. Robinson said that the lawyers for the plaintiffs would accept the offer, and at 3 o'clock preparations were made to go.

Judge Eggleston said he didn't want any wrangle at the factory. It was agreed that the jury would be in charge of the marshal and that all questions the jury desired to ask should be asked through the Judge, and before the party left the courtroom it was agreed that No. 2 wire be used in the machines. The balance of the afternoon was spent at the factory, and the party did not return to the courtroom.

Built for Two; Carries Four.

Lud. C. Havener, the well known Worcester (Mass.) dealer, was in New York last week. As one of the pioneers in the cycle trade, Havener has his eyes open to the possibilities and probabilities of the motorcycle. He was the first in Worcester to own and ride a motor tricycle, but he is keenly interested in the motor bicycle as well, and before reaching New York he had visited several cities where motors and motor bicycles are a-borning.

Havener has had the experience of all pioneers.

"Three or four times I felt as if I'd like to throw the blamed thing in the fields and leave it there," he said, "but now I've learned the machine and know just how it is built and just how it works, and wouldn't part with it for a great deal."

Havener also has the front seat attachment, which converts the tricycle into a quadricycle for two, but he has widened the front seat, and now takes out his whole family—wife and two children—on the machine.

Claims They Did Nothing.

Thomas Van Tuyl, an inventor of an adjustable handle-bar, has just sued Homer J. Young and Edward P. Hubbell, all of Toledo, Ohio, for \$1,000. The plaintiff says that in September, 1898, he contracted with the defendants to give them the exclusive right to manufacture and sell the bar. They agreed, the plaintiff says, to sell not less than ten thousand in one year. The plaintiff claims nothing has been done by the defendants; so he sues each for \$1,000, the amount he says he would have got had the defendants fulfilled their part of the contract.

TAX AGAIN TRIED

Georgia's Comptroller Prepares Another Grab Aimed at Bicycle Industry.

It is highly probable that had it not been for the determined resistance made by W. D. Alexander, an Atlanta, Ga., dealer, to being mulcted to the tune of \$100, the Georgia bicycle tax muddle would never have been straightened out. As it is, it is in a fair way of being threshed out thoroughly and finally settled.

Comptroller-General Wright is preparing for submission to the Georgia Legislature an act providing for the imposition of a tax of \$100 upon the manufacturer for each make of bicycle sold in the State, and one of \$10—not \$100, as has been erroneously stated—upon each dealer. The act will be so worded that it cannot possibly be misconstrued, as was the former one.

It will be remembered that about a couple of years ago the Georgia Legislature passed an act taxing bicycle manufacturers \$100. Owing to the faulty construction of some of the paragraphs, however, its meaning became a matter of dispute. The most ambiguous paragraph was this:

"That every bicycle manufacturer selling or dealing in bicycles, by itself or its agents, in this State, and all wholesale and retail dealers in bicycles selling same manufactured by companies that have not paid the tax required herein, shall pay one hundred dollars for the fiscal year, or fractional part thereof, to be paid to the Comptroller-General at the time of commencement of business."

Some resistance to the payment of the tax was made by the manufacturers, but the action taken was not concerted, and it ultimately fell through.

Having gained this point the Comptroller-General next moved on the dealers, seeking to secure an additional \$100 from them for each make of machine handled. He caught a Tartar in Alexander, however, as although the latter was fined in a municipal court and forced to pay the \$100, he appealed to the Supreme Court of the State and was completely successful. The latter decreed that a dealer having paid \$100 could not be again assessed, no matter how many makes of machines he handled.

This decision, which was rendered last spring, left matters in an unsatisfactory condition. The Comptroller-General was especially dissatisfied. In consequence he has prepared for the forthcoming meeting of the Legislature the new act summarized above.

It is already plain that the measure will be vigorously fought. A number of Atlanta dealers have banded together to oppose it, among them being Messrs. Alexander, Thornton, Byrd and Randall.

This plan of campaign was decided on when the proposed tax on dealers was announced to be \$100, the same as for the manufacturers. Now that it is known to be \$10 it is by no means certain that they will continue their opposition.

In the mean while the manufacturers' tax will probably be pushed through. If this should be the outcome the manufacturer will have to pay \$100 for each make of machine sold in the State instead of \$100 for all, as at present.

PUT A NAIL IN HERE



THERE is not a competitor in your community who would not be glad of the opportunity to tack this up—but only an Orient dealer can do it.

The Mecca of the maker and the ambition of the rider has been reached at last. The much coveted record has gone where all good records go—to the Orient Leader.

Stinson on an Orient Leader, paced by an Orient Aster Motor Tandem was the first to cross the line, rounding out the full measure of 40 miles and 330 yards in the hour at the Shoe City Oval, Brockton, Mass., riding under the direction of N. C. A. officials.

Thus the coveted prize comes to the Orient together with all the marks up to 40 miles, except the first mile, which was also made on an Orient by Elkes.

Whatever the future may bring forth, it is always the Orient that LEADS and this remarkable feat was accomplished by the Orient Leader FIRST. Remember that in days to come and take advantage of it now.

Have you ordered the new Tailored Orient—the only winter model furnished by any maker? If not—apologize for lack of enterprise.

WALTHAM MANUFACTURING COMPANY, WALTHAM, MASS.

The first to
cross the
40 mile
line in
an hour
was the
ORIENT
LEADER

Fisk Tires

A POPULAR CANDIDATE.

A candidate that is popular with ALL parties and always
RUNS WELL—The Fisk Tire.

IF ELECTED

to go on your wheel this year, it will prove a faithful servant
and always serve your best interests.

FISK RUBBER COMPANY

CHICOPEE FALLS, MASS.



BOSTWICK OR VANDERBILT?

Banker Brings Over a 12 h. p. Tricycle and is Ready for Either.

When the American Line steamer "New York" came to anchor at New York on Saturday it brought with it a famous racing man and one of the latest creations in the motorcycle line—a French tricycle that is guaranteed to run fifty miles an hour if any road can be found that will stand this rate of speed.

George A. Banker—for it was he—is bubbling over with enthusiasm over the outlook for the motor vehicle. He is through with racing, he says, and ready to settle down and attend strictly to business—that of Banker Bros., Pittsburg. As their card states, this firm carries in stock such motor parts as Longuemare carburetors, French batteries, Reclus spark plugs, De Dion spark plugs, grade indicators, copper gaskets, densimeters, amperemeters, voltmeters, etc., as well as motorcycles and automobiles, and the returning pilgrim had sent over goodly stocks of these articles.

At the wharf Banker was met by his brother, Arthur L., and the Bicycling World representative. After some delay the ordeal of the Custom House inspectors was successfully passed, and the tricycle loaded on a truck and sent uptown.

The delay afforded an opportunity to examine the colossus—for such it is. Immense strength and enormous power characterize it unmistakably. It has a double cylinder De Dion air cooled motor which develops twelve horse power. The cylinders work alternately, each having its separate system of electric ignition; the carburettor and gasoline tank are of extra size. The wheel base is unusually long, the tubing of the frame is of large diameter and heavy gauge, and the wheels are of heavy gauge spokes and fitted with 3½ inch Dunlop tires. Three band brakes are attached to the machine.

Being fresh from Paris, Banker is naturally much impressed with the great vogue enjoyed by the motor vehicle in the gay city on the Seine. They are, he says, a more common sight than carriages, and embrace every known form of vehicle. Motorcycles are increasing rapidly, and are beginning to run the automobiles hard. At present the three and four wheelers are in the majority, but bicycles are by no means uncommon.

Of the latter patterns, the Werner seems to have a long lead. It is made in Paris, and, being the first in the field, it has obtained a good start and is in a position from which it will be hard to dislodge it.

"The general opinion seems to be that the front wheel should carry the weight of the motor," said Banker when asked to explain this seemingly impregnable position of the Werner machine. "They say that it does

not interfere with the steering to have it there—and I know by experience that this is true—and that it improves the stability of the machine. If the weight is on the rear wheel, they claim, the latter is liable to skid, especially if the motor should miss an explosion.

"My tricycle is called the 'Perfecta,'" he went on, "and it is the fastest machine in the world. When I have got its management down fine I shall not be afraid to meet any one, no matter what kind of machine they may have. No, I don't even except the Vanderbilt or Bostwick automobiles; my machine had performances to its credit in France that surpass anything they have done; and they were French born and bred, too, and made their best runs in France."

To Reduce Handlebar Vibration.

"Wheeling" thus describes a new anti-vibrating handlebar which has made its appearance on the "other side."

On the top of the steering pillar is fitted a small casing or box. To a suitable lug the handlebar is fitted, and this lug extends through the box, which acts as a guide, supported by two steel springs, one at top and one underneath. Through the box or guide the lug extends some two inches, where it is fitted to a toggle joint, which runs down at an angle, joining the steering pillar two

"Wheeling" says the device is so neat, simple and effective that the wonder is that it was not thought of long ago. It is the invention of one Sadler, and, while designed for cycles of all kinds, it is likely to prove particularly useful on motorcycles.

Andrae Almost Ready.

The Julius Andrae & Sons Co., Milwaukee, expect to have their 1901 models ready and their travellers on the road before the close of the present week. The Andrae people promise that the wheels will be better than ever.

Despite impressions to the contrary, the Andrae company say that their trouble in the early summer did not interrupt their business for a moment, and with affairs adjusted to the satisfaction of all creditors they are doing business on a cash basis. Since July 1 they say they have been discounting all bills and expect to continue doing so.

Duckworth Books a big Order.

James Duckworth, the Springfield (Mass.) chain maker, booked an order last week of which he is particularly proud—one for 7,000 chains, which came to him without solicitation of any kind from a manufacturer who used Duckworth chains for the first time last season. As Duckworth's chief claim is quality, not quantity or cheapness, he has reason for his pride; indeed, if he adopted as his slogan, "Duckworth chains are conscientious chains" he would be well within bounds, for that is exactly what they are.

LESS RAIN WANTED

With Good Weather the Pacific Northwest Promises Rich Returns Next Season.

According to Fred T. Merrill, the well known Portland (Ore.) dealer and jobber, if the weather holds true, the Pacific Northwest should be a fertile field for the cycle trade next season.

Mr. Merrill maintains stores in Portland, Seattle, Spokane and Tacoma, and handles the Rambler bicycle in the States of Oregon, Washington and Idaho, and is consequently in position to speak authoritatively.

He has been in New York for nearly two weeks past, and as the result of negotiations with the American Bicycle Co. he will continue to represent the Rambler exactly as before.

He says that while his territory ordinarily has a rainy spell during the fall, for the last two years it has rained spring, summer and fall; in all, there have been not more than three months of good weather during each year.

Merrill is not complaining; he has done a splendid business, but with light wheels and the ordinarily clear weather common to the region he thinks that it will prove a richer field than ever; if the weather is right, business should open strong early in January or February.

Pierce's Pan-American Special.

In honor of the Buffalo Exposition the George N. Pierce Co. will term their 1901 cushion frame chainless—their leader—the "Pan-American Special"; the wheel, which was one of the pronounced successes of the past season, has been further refined, and in its 1901 form will also be fitted with a hub coaster-brake.

"This combination," say the Pierce people, "is well in advance of everything, and illustrates, perhaps better than anything ever produced, the high development of bicycle construction."

Cushioned and Chainless.

The National Cycle Mfg. Co. of Bay City, Mich., is notifying its agents that next season they will place on the market a cushion frame chainless National. The National Co. is one of the concerns that became converted to the cushion frame doctrine, they having recently placed a good order with the Hygienic Wheel Co., as noted by the Bicycling World a few weeks ago.

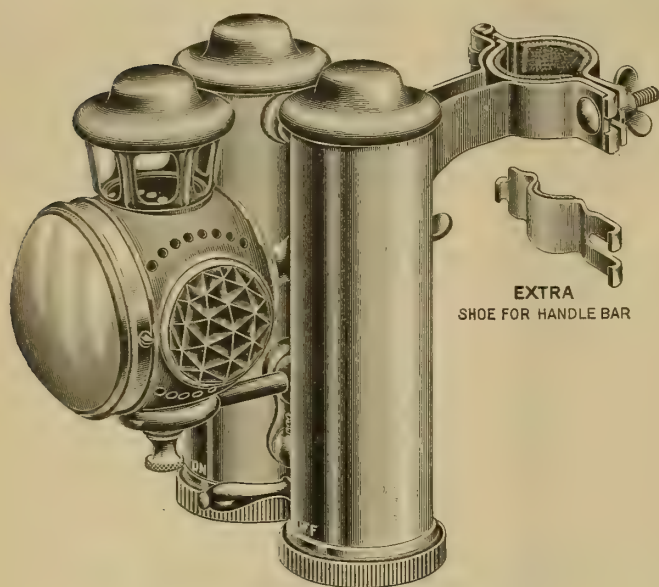
From Cycles to Carriages.

There is a strong probability that the Keating Wheel and Automobile Company, of Middletown, Conn., will be sold in the near future. Negotiations are pending with Receiver Betts looking to the purchase of the plant, which would in such case be used to manufacture rubber tired carriages.

TWO OF A KIND.

BOTH STANDARDS OF THE WORLD.

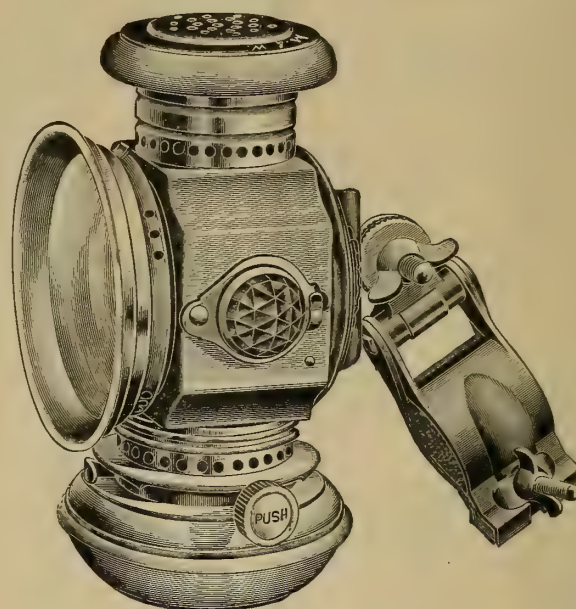
THE ONLY CORRECT GAS LAMP.



THE DUPLEX, \$3.50.

Marked a revolution in gas lamp construction. The
right principle applied in the right way.

THE KING OF OIL LAMPS.



M. & W. OIL LAMP, \$1.50.

Too well known to need description. Too well liked
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Prices always Maintained; Quality never Cut.

Why Fool with Just-as-Goods?

WRITE

for our illuminated Catalog and new quotations. They will interest you.

MATTHEWS & WILLARD MFG. CO., WATERBURY, CONN.

"FOLLOW INSTRUCTIONS"

The Surest Guide to Satisfactory Export Trade—Some Sample Troubles.

Much has been written about the misfortunes of American manufacturers who have suffered loss by extending credit to irresponsible foreign merchants, but, says American Trade, little is heard of the other side of the story; that is, the losses which foreign merchants suffer not only through the mistakes of American manufacturers, but also by the deliberate disregard of explicit instructions which accompany the orders.

A merchant in Persia writes to the National Association of Manufacturers complaining of his unfortunate experiences with two manufacturers from whom he purchased goods, and to whom he remitted in full in advance of shipments. In one instance the purchases amounted to about \$250, and the orders (duplicates of which are submitted for inspection) explicitly specify that the goods must be packed in tin-lined cases. Instead of following these instructions the goods were packed in frail boxes lined with waterproof paper, the manufacturers stating, when asked for an explanation, that they never line any of their packages with tin.

As a result of this failure to follow instructions, and the use of flimsy packing cases, the goods arrived at their destination thirteen months after shipment in a ruined condition. There was hardly anything of salable value left in the cases, and all that the merchant had to show for the money he had remitted more than a year before was an interesting collection of fragments. There were sufficient fragments, however, to show that the manufacturers had taken further liberties with his orders, and had substituted other goods in place of some which he had specified.

From another manufacturer in the United States the same merchant purchased some cheap machines, which possibly he ought to have known would hardly pass for what they pretended to be, but the representations of the manufacturer were such that he confidently ordered over \$800 of these goods. It was thirteen months before these machines reached Persia, and upon their receipt the merchant found that he was again a victim of misrepresentation, and had in reality purchased something that was little more than a cheap toy, when he thought he was buying a practical working machine. On this transaction the merchant's losses, as he figures them, amounted to nearly \$900, so that on these two purchases of American goods the buyer finds himself out of pocket to the extent of about \$1,100. But he has gained much in experience.

It might reasonably be expected that such an experience as this would hardly encourage a merchant to place further orders in

the United States, but, fortunately for the reputation of American manufacturers, several other lots of goods which were ordered from this country arrived in good condition, were found to be exactly as represented and gave entire satisfaction. It is not surprising, however, that now, in placing another order for some American machinery, this same merchant writes to the National Association of Manufacturers and asks to be assured that the manufacturers from whom he proposes to order are reputable people and will send him what he specifies.

There is very much more of this sort of thing than is generally known to the public, or even to those manufacturers who make mistakes or take liberties with their foreign orders. In many cases when the foreign merchant finds that his instructions have not been followed, or that he has been imposed upon, he simply maintains silence and sends his future orders to Europe. Many a manufacturer in the United States, if he could ascertain the facts, would find that his failure to receive repeated orders from foreign customers has been due to his own carelessness or his departure from the requirements expressed by his foreign customers.

"Follow Instructions" would be a very appropriate motto for every office where a foreign order is received, for the shop where the goods are made and for the shipping room where they are packed and dispatched. The foreign buyer who stipulates with careful detail just what goods he wants, how they are to be packed, marked and shipped, has a reason for every stipulation he makes, and no manufacturer or merchant with whom such an order is placed has any right to modify the order or the instructions. The importance of this rule cannot be impressed too strongly upon American manufacturers, for too often they take unwarranted liberties with orders which come from abroad, and forever destroy the possibilities of future business.

Closed a Big Contract.

The National Cement and Rubber Co., of Toledo, have closed a contract with the A. F. Shapleigh Hardware Company, of St. Louis, for their entire line of cements, ovens, braziers, vulcanizers, etc.—an order which the National people say is the largest ever placed for goods of that nature.

Hawkins Still at It.

G. H. E. Hawkins, who did such clever advertising work for E. C. Stearns & Co. when the "Yellow Fellow" was in its prime, is now in business on his own account at 1,123 Broadway, New York. He is designing and "compounding" the Fisk tire ads., among others.

Will be a Beauty.

The Matthews & Willard Mfg. Co., of Waterbury, Conn., will have something unusual in the way of lamp catalogues for 1901. It is well under way and will surely create talk when it makes its appearance.

WARNING REPEATED

Another Urging that American Makers Protect Their Trade Names in Germany.

It appears necessary to recall the attention of American exporters to a very peculiar provision of the German law for the registration of trade marks which is not infrequently used to the great and unjust advantage of Americans and other foreigners, writes Consul-General Mason from Berlin.

Under the German statute any person may register and secure right to any name or other device used as a trade mark which has not previously been registered here by some other firm or person. In other words, the officials before whom the application is brought make no inquiry to ascertain whether the applicant has ever used the proposed trade mark or has any right to it, but simply look over the record to ascertain whether it has been registered in Germany. If not, it is admitted to registration without further inquiry or delay.

The readiness with which such a practice can be abused is apparent. When, several years ago, American bicycles began to be imported into Germany, certain persons interested in blocking the trade got the trade marks of two or three makers registered in their own names, and either obliged the legitimate American owners of the trade marks to buy them off—in other words, to pay a species of blackmail—or to change the marks on all bicycles exported to Germany.

In a recent case the trade mark on a special brand of American preserved fruit was registered here by an outsider, so that the real owner had to buy from the usurper the right to use his own trade mark in this country.

This abuse has become so notorious that a leading patent attorney of Berlin, writing in a recent number of the *Technische Rundschau*, says of the law that its effect is to legalize and facilitate the theft of a trade mark.

The obvious suggestion to all American exporters is that before exporting or seeking to export to Germany any kind of merchandise covered by a well known name, whether registered in the United States as a trade mark or not, they should have such name or trade mark duly registered in this country, where all such rights are carefully protected and prosecutions for infringements easy and effective.

From the Kaiser's Bailiwick.

A foreign tradesman of note who is traveling in this country, combining business with pleasure, is Maurice Talbot. In connection with his brother he conducts a large cycle establishment in Berlin.

Confident of the Future.

Theodore Jonas, Eleventh and National avenues, Milwaukee, Wis., is erecting an pleted the force will be increased to fifty men.



The G&J Tire Co.

Indianapolis, Ind..

Dear Sirs:-

Let me take the liberty to tell you what I think about your "G&J" tires:

Ten years ago as retaildealer and now the largest importer of American Bicycles in Holland, I have used all kinds of tires on the market, but I am thoroughly convinced, that the "G&J" tire is by far the most comfortable one and for easy repair it has no equal.

At first by introducing the "G&J" it has cost me hard work-time and money, but having the fullest confidence in the superior quality and your straight forwarding business policy, I have pushed the "G & J" with courage and pleasure as hard as human beings can do, so I have at present more than 250 Bicycle Agents who give the preference to the "G&J" above others; they recommend them strongly.

I feel sure that there is no question of its superiority over other tires, and it is a very nice durable tire. On first class wheels I do not want a other one and for 1901 I expect to use the "G&J" on a thousand or 1500 high grade wheels exclusively,- you will hear from me just as soon I have arranged for the right wheel, at the right price, from the right makers.

I am

Yours truly

Klaas Baving

TWO WAYS OF WORKING

Little Incidents that Show Two Differing Types of Cycle Dealer.

"There are nearly always two ways of doing a thing, and it is not very far from the truth to add that they correspond pretty closely to the right way and the wrong way," remarked an old rider to the BICYCLING WORLD man a few days ago.

"The point I make is, illustrated by a couple of experiences I had during the present season. Some months ago I desired to take a ride with a machine that had not been used for a little while, and the tires of which, consequently, were soft. There was a cycle store around the corner, and, having no pump except a small one operated by hand, I concluded to walk around there and avail myself of the services of the proprietor or his assistant.

"Arriving there I found the former standing in the doorway talking to a couple of riders. He paid no attention to me until I, after some little delay, asked him if I could get some air. He seemed a trifle put out at having his idle conversation interrupted, and carelessly waved his hand toward a large pump affixed to a stand, as much as to say, 'There you are, help yourself.' As this appeared to be the only way of getting what I wanted I set to work.

"The pump being fixed to the stand, it was necessary to bring my machine to it and hold it while I took off the valve caps and screwed the nipple to the valves; while pumping I was able to lean it against the stand.

"The pump was not in the best possible condition, and it took some little time to fill both tires. It was rather a warm day, and when the task was performed I was pretty warm, as well as dirty from having handled the wheels, the valve caps, rubber connections, etc. Mentally I was anathemizing tires that had to be pumped, as well as dealers who paid such scant attention to their customers.

"The work done, I ventured to interrupt the owner of the pump once more, asking him how much I owed him. To my astonishment he replied that there was nothing due; that he only charged when he did the pumping, as the pump itself was free. Well, I was pretty mad at this. I would much rather have given the man five or ten cents to have him do the work, but he had given me no choice in the matter.

"My reflections as I rode away did not shower any credit on this dealer or others of his class. Here, I thought, were men complaining that they could not earn their bread and butter, yet they actually threw it away and added insult to injury by compelling customers to do work they would gladly pay for.

"Well, last week I had another and very different experience. I got ready for a ride

and found that my rear tire was just a trifle softer than it ought to be. Passing a bicycle store, I dismounted and went inside. There was a big pump near the door, with the dealer not far from it. To him I put the same question, mildly wondering whether I should get the same reply.

"But this was a tradesman of a different stamp. With a pleasant, 'Certainly,' he stepped to the pump, took my machine and began to unscrew the valve cap. The connection was attached to the valve, and with three or four strokes of the pump the job was done.

"In the brief interval of waiting my eyes fell on a lettered card, which read: 'Tires pumped, five cents. No free use of tools.'

"Noting this, my query 'How much?' was entirely perfunctory, and I had my nickel



NEW YORK BRANCH: 214-216 WEST 47th ST.
BOSTON BRANCH: 80 BATTERY MARCH ST.,
Near Fort Hill Square.

ready by the time he replied. Giving it to him and receiving my machine, I took my departure, busy with my reflections—this time pleasant ones.

"Here was a man who had an eye to both his customers' interests and his own. He wasn't in business for his health, and knew that money had to come from somewhere to pay his rent and other store expenses, as well as his own living expenses. Why should he be expected to give the use of his tools free, merely out of good fellowship? And why should he assume that every rider who came into his place would rather pump his own tire than pay a nickel for having it done?

"He answered both these questions in the same way, and I have no doubt that he is a great deal better off than had he taken the other course. I know, at any rate, that I shall give him whatever patronage I may have to bestow."

"Motocycles and How to Manage Them." The name explains the nature of the book. Price 75 cents. For sale by The Goodman Company. * * *

JOHN BULL'S "BULL"

Discovers an American Coaster-Brake of Marvelous Adaptability!

This is truly an age of surprises. No sooner does the world become accustomed to one wonderful invention than another comes to take its place and be the recipient of the encomiums held to be its due.

Some months ago the BICYCLING WORLD recorded the discovery of a method of graduating the gearing of machinery to the work being done. By a process not too clearly or definitely explained the speed of the lathes, etc., was varied to suit the size of the cut being taken, this being accomplished automatically. The inventor had not perfected his invention at the time, but promised further particulars, which have not yet been given forth.

This valuable invention, however, had relation to machinery exclusively. But either the same inventor or one equally ingenious—although it seems hardly probable that there are two of them—has now gone further and applied the process to the driving of bicycles. The supposition that the inventor is the one first referred to is strengthened by the statement made that he is an American.

The story is put forth by that staid, prosaic and matter of fact journal, the 'Cyclist,' and the facts are vouched for in a manner that is not quite as positive as it might be. That it should be intended as a joke is quite out of the question, for who ever heard of the 'Cyclist' cracking a joke? However, here is the plain, unvarnished tale, and its probability is thus easy to judge:

"Now that interest is being taken in the question of variable speed gears, it may be interesting to record the fact that we have just come across a gear which presents many points of novelty.

"It is contained within the crank bracket, so that a free wheel can be used in the ordinary way, and in its action it is entirely novel, for not only does it give two speeds, but it gives infinite variation between the two extremes, and, what is more, gives this variation automatically, the gear varying according to the resistance in relation to the power applied.

"Thus, within certain limits, the action appears to be this: The harder the rider pedals on a level or declining road, the higher his gear becomes. As the road rises, or the road resistance increases, keeping the same pedalling force, his gear automatically decreases. On a hill, the steeper the gradient the lower becomes the gear. If the rider then increases his pedalling force the gear rises until the hill gets so much steeper as to counterbalance the extra force applied, when it again decreases, and, supposing the rider to be exerting his maximum force and the gradient continuing to increase, the gear becomes automatically reduced until its minimum point is reached.

"The gear is neither heavy nor complicated, and there are no internal running wheels, so there should be but little frictional loss. We hope to give fuller particulars shortly. In the mean time we are further investigating it, as we have not yet seen an actual model, and, of course, have not yet put it to a practical test.

"Still, it is interesting, and the idea presents considerable possibilities. We may add that it is an American invention."

Ring out the old; ring in the new;
Ring out the false; ring in the true.

We've done it.

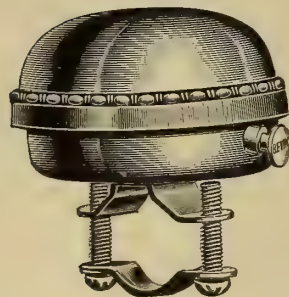
The old are out, the new
are in,

and they, like all

BEVIN BELLS,

are true.

Here are a few of them.



THERE ARE OTHERS.

ARE YOU READY FOR QUOTATIONS?

Bevin Bros. Mfg. Co.,

East Hampton, Conn.

Also Makers of Trouser-guards, Toe-clips, Lamp-brackets, etc.

THE BICYCLING WORLD

Only Japan and Philippines Show Gains.

September was not a particularly healthy month in the matter of cycle exports. Small shipments were the rule, those to Europe and the United Kingdom being close to low water mark. The increases, as has been the case during recent months, were all in the Far East—Japan, the Philippines and Africa,

the latter increase being in the nature of an unexpected spurt.

For the nine months ending with September the shrinkage in most instances roughly approaches 50 per cent. Japan and the Philippines are the only countries to show gains.

The figures in detail are as follows:

	September		--Nine months ending		September--
	1899.	1900.	1898.	1899.	1900.
	Values.	Values.	Values.	Values.	Values.
United Kingdom.....	\$20,841	\$18,558	\$1,547,833	\$626,005	\$393,104
France	5,693	1,511	459,887	399,681	174,391
Germany	13,218	5,840	1,381,503	731,669	315,710
Other Europe.....	16,619	10,282	852,175	817,233	585,582
British North America.....	8,166	8,737	553,511	510,300	345,350
Central American States and British Honduras.....	324	556	5,554	4,143	1,600
Mexico	2,830	755	50,951	35,537	11,516
Santo Domingo.....		80	598	298	232
Cuba	14,662	521	3,406	64,504	63,898
Porto Rico.....	77		1,354	2,311	1,461
Other West Indies and Bermuda.....	2,752	2,924	56,667	48,990	35,675
Argentina	31,756	6,759	79,031	232,518	68,297
Brazil	2,996	1,041	82,040	26,393	15,392
Colombia	682	21	6,893	6,790	3,421
Other South America.....	8,045	2,262	34,518	49,938	32,967
China	3,198		18,337	19,423	17,966
British East Indies.....	14,222	6,020	105,868	93,841	48,567
Hong-Kong	1,164	661	6,436	7,554	6,446
Japan	19,135	30,898	106,503	86,626	213,079
British Australasia.....	15,977	15,286	175,264	173,001	169,468
Hawaii	1,177		(1)	37,019	32,473
Philippine Islands.....	193	3,359	60	1,151	43,004
Other Asia and Oceania.....	6,547	734	61,210	35,548	21,266
Africa	5,795	12,801	134,414	136,607	46,101
Other countries.....		60	1,699	274	417
Total	\$196,069	\$129,666	\$5,725,712	\$4,147,354	\$2,647,383

Wyoma's Talking Points.

There is not the slightest doubt that coaster-brakes are going to cut a very wide swath next year. Indeed, the prediction is freely made that by the time the season is in full swing this method of construction will have become standard.

Among the devices of this kind that have made a good name for themselves during the past year is the Wyoma, made by the Wyoma Coaster-Brake Co., Reading, Pa. It is supplied either in its detachable form, ready to be applied to any make of hub, or in combination with the Wyoma hub. The convenience of this will be readily seen.

In the coaster-brake no balls are used; instead, tool steel rollers are fitted, thus insuring reliability and durability. The brake is a very powerful one, consisting of a cone-shaped fibre washer which fits into a metal cup of the same shape.

The total weight of the device is nine ounces, and it is priced at a figure that will prove to be an eye-opener.

Shapleigh Takes Neustadt.

The business of the Shapleigh Hardware Co., of St. Louis, Mo., will be further extended, now that the business of the J. H. Neustadt Cycle Supply Co., of the same city, has been absorbed. The entire stock and good will of the latter concern were purchased.

Some Novelties Recommended.

Such a stimulant as novelty of design would prove to be is frequently urged as the best way of extricating the trade from the rut into which it seems to have fallen.

Some forms these novelties might take are pointed out by an observer, who says that the greatest hope for next year's trade is placed on a spring frame device, which will increase the comfort of the rider without making the cycle heavy or difficult to drive, or unsightly—faults which have been proved against the existing anti-vibrating designs. It must not be too costly, yet expensive enough to make people think there is something in it.

Also, it must be appreciatively different from standard patterns, so that even the gamins can distinguish it. Half the satisfaction of riding a new machine lies in the public notice it attracts. Two-speed gears offer another opportunity to the cycle maker of evolving a boom which would be really useful.

A fool proof cycle with a low gear for hill work and a high gear on the level, with a free wheel, simple yet powerful brakes, comfortable spring frame and a few odd improvements in minor details, would, if light, speedy and neat looking, help on the trade immensely next year.

SHAMELESS JOURNALISM

Fake Firms Bolstered, Inquires Induced and Fake Correspondence Created.

When a galoot howls he attracts a certain amount of curiosity; when he wails he attracts a little more; when he raves he becomes a spectacle, and a sorry one.

The "Cycling Galoot," that is to say, the "Cycling Gazette," has successively howled, wailed and raved. First it howled at the *Bicycling World*; the *Bicycling World* gave it a prod in the short ribs in return; then the "Galoot" wailed; last week it raved, the raving gradually tapering down to a whine for sympathy.

Its raving was typical of itself; it was maudlin, incoherent and disconnected. Placed on the defensive, the Gazette flounders in pitiful fashion. It makes a weak attempt at replying, but devotes itself chiefly to matters foreign to the subject. It gibbers something about the *Bicycling World's* attitude toward the American Bicycle Co.—an attitude for which no apology is necessary. While endeavoring to maintain their own prices, the A. B. C. struggled to break the *Bicycling World's* rates, and certain of its employees endeavored to injure the paper. The *Bicycling World* resented it—a perfectly natural proceeding.

The effort to break the *Cycling Gazette's* rates was made at the same time. It promptly wailed; it telegraphed the *Bicycling World* suggesting a combination to secure rates. The *Bicycling World* wired back that it was not in the habit of cutting rates and knew how to conduct its own business. This message was sent collect, and the Gazette wailed again.

The Gazette then accepted the A. B. C. business. The *Bicycling World* stood fast, and is able to say that it cut no rate, gave no commission or rebate, "threw in" no gratuitous pages or did anything else that did not appear on the face of a contract.

In maudlin fashion the Gazette tries to connect the *Bicycling World's* removal from Boston to New York with a desire to curry favor with greatness, the "greatness" being the A. B. C. If this is not true, asks the Galoot, why did the *Bicycling World* take quarters almost next door to the American Bicycle Co.? Was ever there such childish prattle or infantile reasoning? The *Bicycling World* is in "Newspaper Row," where 75 per cent of the metropolitan prints are published. Perhaps the Galoot will say that they are all located here to curry favor with the A. B. C.!

The *Bicycling World's* removal to New York was a sore blow to the *Cycling Gazette*. It was also figuring on moving here, but the cost of doing business in New York was too much for it, according to the chief Galoot's own admission. Now he says his home place is the heart of the cycle trade, and of course the cycle trade believes it!

Having said all this, the Gazette whines that not only the *Bicycling World* but other cycle journals are pounding it—that it is the victim of a combination or conspiracy. This is a plea for sympathy. But the combination or conspiracy is one of the visions of the Galoot.

Any newspaper man who has a particle of pride in his profession must resent the methods of the *Cycling Gazette*. With it, it is dollars before decency. Its motto is substantially, "Do anything for a dollar."

The *Bicycling World's* charge was based on this one point. It charged that the *Cycling Gazette's* policy was to "print anything from any one that promises a dollar in return"; that it got business by agreeing to "print any puff sent to it by an advertiser without changing a word," thus permitting the quacks and shysters of the trade to bolster their credit and make themselves appear as large and responsible as the large and reputable merchant.

It is this sort of thing that soils the honorable calling of journalism; the public print that follows that policy deserves nothing but condemnation.

The Galoot admits it, however, on the ground that it is not published for the "recreation of its editors."

The Galoot cannot see it, but it is a shameful admission.

Two recent instances of what this policy on the part of the *Cycling Gazette* means are opportune.

For weeks, if not months, it carried the ad. and printed the puffs of a so-called "manufacturing company" in Chicago which offered "pants cuffs" for sale. The same business and puffs were offered the *Bicycling World*. The "manufacturing company" used a rubber stamp for a letter head, the paper being of the sort commonly used for office memoranda. A year's contract was promised on receipt of blanks.

As the *Bicycling World* does not accept advertising from "manufacturing companies" using such letter heads, the case was investigated and it was found that the address of the "manufacturing company" in question was that of a private house. The "company" was an individual without rating, credit, factory or office. Yet the Gazette, as stated, carried the business and "puffed" the "company" for months, merely on the prospect of getting a few dollars, which there is reason to believe it never got.

The case of the ephemeral "pants cuff manufacturing company," which so readily obtained puffs and half-page ads., was not an isolated one, for until last week, and after the *Bicycling World* had charged the Gazette with puffing and advertising trade quacks, that paper had carried for five or six months in half-pages and other spaces, a supposed Chicago firm which posed as manufacturers of dress guards and lubricants. A firm name was used and an address on the outskirts of Chicago given. The address in question is that of a private house. In-

quiry developed that the "firm" consisted of an ambitious individual who, according to the lady who answered the door, "worked downtown during the day and made a few things in the cellar at night."

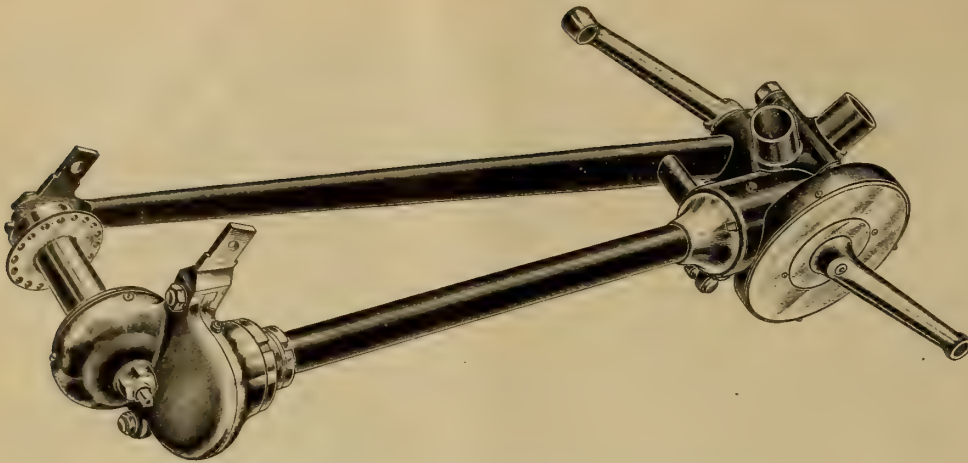
This is the "firm" to which the *Cycling Gazette* has given six months' advertising, and which, like the "pants cuff manufacturing company," was privileged to boost its credit and indorse itself and its goods and have its indorsement printed in the *Cycling Gazette*, whose favorite claim for patronage is that it "never changes a word, like the other papers do."

How many others of like nature there are is a matter for conjecture, but these cases have been investigated and names can be given whenever occasion requires.

In its continual horn tooting the Gazette lays great stress on its virtues as a trade helper and trade "soft-soaper" generally. Appreciating that it is indifferently read, it reprints on separate slips of paper some of its choicest sayings and mails them to advertisers, asking that they be read. But the Gazette advertising columns reflect its real self. While the *Bicycling World* and other papers really anxious to serve the trade have refused such advertising, the *Cycling Gazette* is almost the "price cutters' own." The Indiana concern that makes a specialty of buying old stocks, from bicycles to nuts and bolts, and working them off as up-to-date goods and at cut-throat prices, although refused by other papers, has no trouble in advertising itself largely in the *Cycling Gazette*; the same is true of the Chicago price-cutting house that used the Gazette to advertise bicycles at a ridiculous price and to acclaim itself "a paralyzer of prices." Other instances of the sort are numerous.

The *Cycling Gazette* is one of those papers which have had recourse to "stickers" or "pasters" to delude advertisers into the belief that the paper, of itself was bringing answers to advertisements. These "pasters" say "I saw your ad. in the *Cycling Gazette*," and if the trade will only appreciate the fact, they can be used only when "planted;" that is to say, batches of them are sent to or left with friendly dealers with the request that ads. be answered and the "pasters" used on the answers. They are what are known in newspaperdom as "inspired replies," and no more stand to the credit of the paper credited than if the paper itself had written the letters. No decent paper stoops to such methods.

The *Cycling Gazette* prattles about the "special correspondence" with which it teems. But this feature, like so many others, is an empty sham and pretentious fraud. Fully two-thirds of the Gazette's so-called "special correspondence" is matter stolen bodily from the daily press, and in the Gazette office the name of a city and a date are supplied and the words "Special Correspondence" interjected. There is seldom a week that from two to ten articles of the sort are not so treated. Matter copied from the *Bicycling World* by outside papers has afterwards appeared verbatim in the *Cycling Gazette* as "special correspondence." Most newspapers exchange matter, but it is only the brazen quacks that "lift" from other papers and try to fake readers by palming off "lifted" matter as "special correspondence."



This is a Standard Set of Leland-Faulconer Bevel-Gear Fittings, Complete.

IMPERFECT FITTINGS have HANDICAPPED the "BEVEL-GEAR CHAINLESS BICYCLE." We have given you PERFECT GEARS for three years. NOW WE have SOLVED the PROBLEM: PERFECT GEARS mounted in PERFECT FITTINGS. SUCCESS is thus assured. MANUFACTURERS need go to NO EXPENSE to DESIGN or MAKE FITTINGS. We furnish them already to braze to the frame uprights, for either CUSHION or rigid frame "CHAINLESS BICYCLES." WHEN you build chainless bicycles with LELAND-FAULCONER BEVEL GEARS and FITTINGS you have the BEST CHAINLESS in the WORLD, and, as this means the BEST PROFITS, can you AFFORD NOT to PUSH the CHAINLESS? Correspondence solicited.

LELAND & FAULCONER MFG. CO., DETROIT, MICH.



HERE IT IS!

The Melvin Automatic Coaster Brake.

Thoroughly reliable, having been tested for two seasons. Write for catalogue and prices.

F. M. SMITH & BRO., - St. Paul, Minn.

PATENTS GUARANTEED



Our fee returned if we fail. Particulars and our book "How to Secure a Patent" sent free. Patents secured through us are advertised for sale at our expense. Send sketch and description of your invention and we will tell you free whether or not it is patentable.

CHANDLER & CHANDLER
Registered Attorneys,
906 F Street, Northwest,
WASHINGTON, D. C.

Many have made fortunes from simple inventions.

NEVERLEAK

STOPS LARGE PUNCTURES.

This is the only fluid that can be legally used in pneumatic tires. Suits now pending.

BUFFALO SPECIALTY MFG. CO.,
Buffalo, N. Y.

SANGER ADJUSTABLE HANDLE BAR.

"THE ORIGINAL AND ONLY."

Patented October 10, 1899.

SANGER HANDLE BAR AND PLATING CO.,
Milwaukee, Wis.

HIGH GRADE

wheels must have the best equipments.

There is nothing that gives more value for the money than the use of the

MORSE TWIN ROLLER CHAIN



NOISELESS IN MUD, WATER OR DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless Rocker Joints. Insist on having the Morse Twin Roller. Fits regular sprockets.

Send for Catalogue and Trade Price to

Morse Chain Co., Trumansburg, N. Y.

GASOLENE MOTORS

FOR

Bicycles, Vehicles and Launches

AIR COOLED AND WATER JACKETED

ACCESSORIES AND PARTS

ALSO

Complete Sets of Castings and Working Drawings

LOWELL MODEL CO.

Box 292 LOWELL, MASS.

Represented by Charles E. Miller, 97 Reade St., N. Y., at Space 14, Madison Square Garden, Nov. 3 to 10.

Sheet Steel Bicycle Parts.

All Kinds of Metal
Stamping

THE CROSBY COMPANY, Buffalo, N. Y.

May Go to Indianapolis.

Indianapolis (Ind.) capitalists are reported to be looking at the plant of the National American Cycle Company at Akron, Ohio, with a view of purchasing it and removing it to the former city, where it would be used to manufacture automobiles.

HAND AND FOOT PUMPS,

Oilers, Repair Tools,
Valves, Name-plates, etc.

Spelter Solder

Sheet Brass,
Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn
Depots: 210 Lake St., Chicago.
423 Broome St., New York.

Have you investigated the "FLEMING"

Hydro=Carbon Motor?

We build 1 1/4 H. P. Motors, air-cooled; 2 H. P. Motors, air-cooled; 2 3/4 H. P. Motors, air-cooled; 4 H. P. Motors, water-cooled.

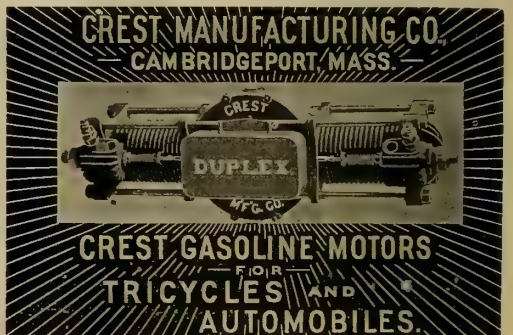
If You are Building Motocycles or Automobiles
write for prices and particulars of the
"FLEMING" Motor to

FLEMING MANUFACT'G CO., 93, 95, 97 Elizabeth St., New York City.

Or to our agents, E. A. Brecher & Co., 95 Reade St., New York; Geo. N. Greiss, 2128 N. Second St., Philadelphia, Pa.; W. P. Weaver, 516 State St., New Haven, Conn.

You can see us during the Automobile Show in Madison Square Garden, New York city, in Space No. 7.

CREST INDESTRUCTIBLE SPARKING PLUGS,
Guaranteed. Price \$2.00.



THREE, FOUR AND FIVE HORSE-POWER MOTORS.
Immediate Delivery.

L. R. HALL

Enameling and Nickeling Co.

ENAMELING, NICKEL-PLATING

and VULCANIZING for the trade.

Carriage Tires
Our Specialty.

4 PORTLAND STREET.
BOSTON.

HIGH GRADES ONLY

New Haven Dealer Who Will Hereafter Handle no Others—His Reasons.

There is little doubt that the bicycle business has been painted in blacker colors than it deserves. This, notwithstanding the large and admitted falling off this season both in sales and in the amount of riding done.

That the latter has not been anywhere near as great appears on the surface is, in all probability, true. The natural tendency is to exaggerate anything of the kind, and it has been indulged in in this case. This view is taken by the New Haven (Conn.) Leader, which quotes a local dealer as saying:

"There have been plenty of wheels sold in the last five years to last for this season and possibly the next. That is to say, there are a great many more wheels out now which are rideable than there are persons to ride them. The day when the man or woman will say that they must have a new up-to-date wheel every spring is past. When a man buys a wheel now he buys it for the use he can get out of it. He uses it as long as there is any good in it, and then he will think about another one to take its place.

"Therefore, persons in search of wheels can now get second-hand ones with which they are perfectly satisfied, while others have wheels which they consider plenty good enough for the season and perhaps for another. It takes about three years to put a wheel in condition where it is unfit for further use, and the result is that we shall probably have another poor season.

"When this big stock of wheels which have been marketed begin to wear out then the owners will want more and we shall gradually get down to a certain demand on which we shall be able to figure. People who think the business has gone to pieces don't want to be fooled. There is to be just as much bicycle

trade as ever, but it will take a little time for the business to get adjusted to the conditions.

"I am satisfied that there have been more wheels ridden in New Haven within the past three weeks than there have been before since last spring, or perhaps a year ago. People would not use wheels in hot weather unless they had become a necessity, and this fact was noticeable by the amount of repair business. The repair business has been poor during the summer, though good in comparison with the sales. It has picked up remarkably within the last few weeks, and that indicates the amount of the riding.

"I venture to say that the amount of sales of wheels within the last season has been about one-half the average trade for the last five years. Some dealers may have done two-thirds of the business, but I doubt if any of them have exceeded this. The repair business, as I say, has been good and this has made up in many cases for the poor sales.

"I have found that the biggest demand was for the very cheap wheels or the high grade ones. I have done a better business in high grade wheels than in any of the others. People who have bought wheels have wanted either a cheap wheel because they could not afford a high grade one, or else a high grade one because they wanted service. Next season I shall carry no medium-priced wheels and shall devote all my efforts to getting rid of the high grade wheels. I anticipate that there will be a good demand for them."

Cole's Expansion.

In addition to the sale of "3 in 1" and bicycle specialties, the G. W. Cole Co. is developing the sale of the lubricant and polish in the sporting goods, hardware, typewriter, grocery, drug and furniture trade, as it is adapted to the requirements of these trades. To further the good work Charles Austin Bates, the well known advertising expert of New York, has been engaged to conduct a vigorous advertising campaign.

FEATURE NOT NEEDED

Why There is No Call for the Convertible Coaster-Brake.

At the beginning of the year, when coaster-brake devices were less understood than now, there was a strong feeling that machines should be so constructed that they could be changed to a fixed gear when desired. The idea never got very far in this country, nothing practical coming of the talk to this effect; but on the other side several devices appeared having this so-called desideratum.

The theory was, of course, that there were certain times when a coaster-brake device was not wanted. Riding in traffic was one of these, it being assumed that the machine was harder to control when going slowly. Nothing but the power to back pedal would make a rider master of his machine under such circumstances.

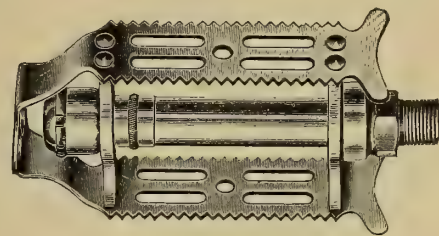
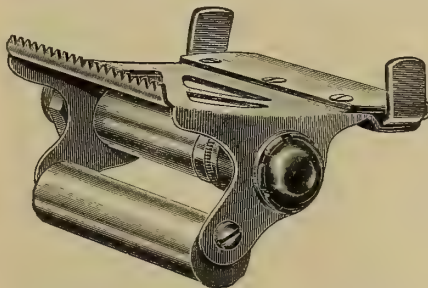
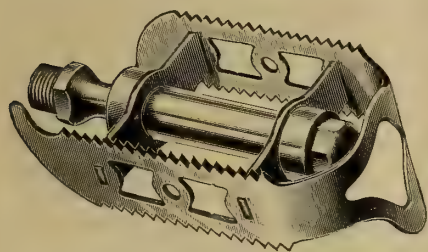
It is hardly necessary to say that actual use has dissipated such opinions. It is doubtful if any rider who has used a coaster-brake device for any length of time ever wants to change it for a fixed gear, even temporarily. There may be times when he does not make use of its coasting feature, and others, even more rare, when the braking feature is held to be unnecessary; but on neither occasion does he desire to be relieved of the device itself.

The truth of the matter is that to the accustomed user of the coaster-brake its presence is rarely, if ever, undesirable; certainly not to the extent of wishing it transformed to a fixed gear.

"Buying in the cheapest and selling in the dearest market" is the old definition of business that still applies.

... WE REJECTED ...

and returned to the makers a considerable quantity of material that was not good enough to go into CURTIS PEDALS. It is being used by others.



Curtis Pedals

are as good inside and under the nickel plating as they are on the outside.

That's why they have been a standard of quality for nearly ten years.

Can you be interested in pedals of the sort?

REED & CURTIS MACHINE SCREW CO., WORCESTER, MASS.

The Retail Record.**CHANGES.**

Sardinia, Ind.—L. A. Arbuckle, sold out.
 Kingston, Wis.—H. Heft succeeds A. E. Vinz.

Orange, N. J.—W. F. Foth succeeds Foth Bros.

Homer, N. Y.—Radway & Quick succeeds F. S. Bilven.

Hamilton, O.—Shafer Hardware Co. succeed Cass & Co.

Hospers, Ia.—John De Bruin succeeds De Bruin & De Jong.

Stockton, Cal.—Arthur Wright, succeeds Crump & Seybold.

Cortland, N. Y.—F. S. Bilven succeeds Kennedy Brothers.

Trafalgar, Ind.—Richardson & Gray succeed J. T. Paskins.

Burlington, Vt.—Henry E. Spear will remove to Main street.

Whiting, Kan.—Bender & Jackman, succeed Bender & Woods.

Waterville, O.—Wilkin, Landon & Patrick, succeed Weibling & Patrick.

Ryan, I. T.—Smith & Mulcock, Jas. K. Mulcock has sold his interest.

Newburgh, N. Y.—Queen City Supply Company succeeds H. C. Stirling; change of name only.

Glenwood, Mass.—F. H. Greaney, No. 106 Washington street, closed for the season.

Elmira, N. Y.—P. A. Renton, 303 East Market street, has sold his repair department to L. Mosher.

Nashua, N. H.—Lintott & Bushwell have removed from Railroad Square to basement of the First Baptist Church.

Los Angeles, Cal.—L. B. Winston, 534 S. Broadway, sold out to Haupt & Svade, who will continue at that address.

Los Angeles, Cal.—Haupt, Svade & Co., 604 S. Broadway, sold out to W. H. Whitesell, who will continue business as the Columbia Cyclery.

Jonestown, Miss.—Jonestown Hardware Co., H. C. McAlister, proprietor, succeeds Jonestown Hardware Co.

FIRES.

Lowell, Mass.—L. W. McKay.

Aurora, Ill.—A. A. King, loss \$500.

Harrisburg, Pa.—Keller & Mumma.

Denver, Col.—Moore & Pinns, loss \$100.

Pittsburg, Pa.—Joseph Haltz, 554 Fifth avenue; loss about \$200.

San Jose, Cal.—Charles Stevers, 72 South Second street; loss about \$1,000; fully insured.

NEW STORES.

Dunkirk, Ind.—C. Craft.

Must Pay License Fee.

At Washington, D. C., the penny-in-the-slot pumps for inflating bicycle tires are assessed a license fee of twenty cents each.

Recent Incorporations.

Charlestown, W. Va.—The Columbian Carbide Co., to manufacture calcium carbide and calcium carbide furnaces, with \$5,000,000 capital. Incorporators, James E. Campbell of Hamilton, O.; A. O. Campbell of Columbus, O.; D. Murphy of Jersey City, N. J.; G. C. Adams and F. J. Patten of New York City.

Bridgeport, Conn.—The Bridgeport Machine & Motor Co., with \$25,000 capital stock. Incorporators, A. B. Barkman, E. T. Brantigram, H. H. Brantigram and B. C. Hendrickson.

Chicago, Ill.—The Manson Cycle & Automobile Co., with \$2,500 capital, to manufacture bicycles, automobiles and other vehicles.

Jersey City, N. J.—Diadum Mfg. Co., with \$100,000 capital, to deal in polishing compounds. Incorporators, P. Whitney, R. Dougherty and G. Willis.

Hope Sustains Him.

A hard man to suit is the livery stable keeper, who now has a new grievance. He has just about ceased talking of the injury done his business by the bicycle, and it was thought that he would sit down and enjoy his renewed prosperity in silence for a while. But no, he sees more trouble ahead; first, the trolley car—which, curiously enough, is assigned as one of the causes of the bicycle's decline—and then the automobile. Listen to his plaint:

"The 'fad' is rapidly losing its grip, only, however, to be succeeded by the trolley car. But we all think and hope that this cheap long riding 'craze' will soon end. The automobile may follow, but sooner or later the horse will be in favor again for pleasure riding. After all, there is nothing better than a spirited, intelligent horse for genuine enjoyment on the road. And the livery man will in time surely regain his former popular prestige."

New Game in Price Cutting.

According to a story that is going the rounds, a new advertising "dodge" was recently employed by a firm in a Southern city. The junior partner of the firm swore out a warrant for the arrest of the senior partner on the ground that he was selling goods below cost, and that the firm was constantly losing money thereby. The case came up in the court, and the counsel for the senior partner asked for a postponement in order to have more time to prepare his case. The judge granted the request, bail was fixed and the senior member released. As he left the courtroom the junior partner arose and exclaimed: "If he is released the sacrifice will go on!" The news soon spread, and the firm did a better business. When the case was again called no plaintiff appeared, and the charge was dismissed. The firm had succeeded in their object—advertisement.

The Week's Exports.

Copenhagen and British Australia were the only countries taking any considerable quantities of cycle stuff during the week ending October 30. Excepting these two, the other shipments were below the \$1,000 valuation. The exports in detail follow:

Argentine Republic.—5 cases bicycles, \$200.

Antwerp.—15 cases bicycle material, \$406.

British Guiana.—4 cases bicycles, \$166; 5 cases bicycle material, \$184.

Bremen.—3 cases bicycles, \$125; 3 cases bicycle material, \$182.

British Australia.—35 cases bicycles, \$978; 64 cases bicycle material, \$2,511.

Brazil.—10 cases bicycles, \$282.

British East Indies.—2 cases bicycles, \$125; 3 cases bicycle material, \$55.

British West Indies.—55 cases bicycles, \$1,163; 10 cases bicycle material, \$389.

Chili.—2 cases bicycles, \$82.

Christiania.—6 cases bicycle material, \$300.

Copenhagen.—63 cases bicycle material, \$2,738; 2 cases bicycles, \$37.

Dutch Guiana.—2 cases bicycle material, \$197.

Glasgow.—4 cases bicycles, \$120.

Hamburg.—3 cases bicycle material, \$82.

Harve.—2 cases bicycles, \$75; 5 cases bicycle material, \$125.

Liverpool.—7 cases bicycles, \$247; 4 cases bicycle material, \$100.

London.—52 cases bicycles, \$654; 4 cases bicycle material, \$486.

Mexico.—2 cases bicycles, \$118.

Rotterdam.—6 cases bicycles, \$175; 5 cases bicycle material, \$577.

Southampton.—24 cases bicycle material, \$725.

United States of Colombia.—1 case bicycles, \$35.

Uruguay.—2 cases bicycles, \$27.

Venezuela.—1 case bicycle material, \$52.

Liverpool.—4 cases bicycles, \$105.

Rotterdam.—10 cases bicycle material, \$250.

Southampton.—1 case bicycles, \$15; 31 cases bicycle material, \$606.

Smyrna.—1 case bicycles, \$60.

Salonica.—1 case bicycles, \$27.

United States of Colombia.—1 case bicycles, \$14.

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

What's the Time.

A booklet with this title, just published by the Chicago, Milwaukee and St. Paul Railway, should not only be in the hands of every traveller, but should have a place on the desk of every banker, merchant or other business man.

The four "Time Standards" which govern our entire time system, and which are more or less familiar to most of the travelling public, but by many others little understood, are so fully explained and illustrated by a series of charts, diagrams and tables that any one who chooses can become conversant with the subject in question. There are also some twenty-four tables by which almost at a glance, the time at any place being given, the hour and day can be ascertained in all the principal cities of the world.

A copy of this pamphlet may be had on application to Geo. H. Heafford, General Passenger Agent, Chicago, inclosing two-cent stamp to pay postage. ***

Japanese Patent Changes.

According to the annual report of the British Controller-General of Patents, a number of new acts have been passed in Japan to amend the law of patents, designs and trade marks. Under these acts the duration of a patent is fixed at fifteen years, and of the copyright of a design ten years, subject to the payment of annual fees. The term of protection obtained by registration of a trade mark is fixed at twenty years, except in the case of trade marks previously registered abroad, where the term is the same as that for which the original registration is valid.

STANDARD SPOKE & NIPPLE CO.,

Torrington, Conn.

Spokes and Nipples

for Bicycles, Motorcycles and Automobiles.

Chicago Office,
40 Dearborn Street.

AUTOMOBILES

WHAT ARE THEY AND
WHAT WILL THEY DO?

Is completely answered (without the use of technical language) and a reliable directory of makers of motor-vehicles and their parts is given in a special number of

THE MOTOR AGE

THE AUTOMOBILE AUTHORITY OF AMERICA

Send 25 cents for Special Number on demand
324 Dearborn Street, CHICAGO



SARTUS BALL RETAINER (The Original) BEST ANTI-FRICTION.

618 BROADWAY, NEW YORK.

MORROW COASTER AND BRAKE.

Over 100,000 Sold
Last Year.

Everyone Giving Satisfactory
Service.

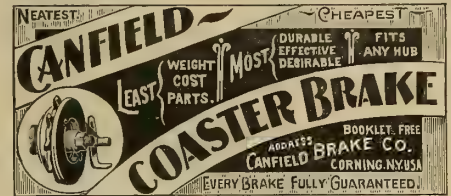
Make Your Cycle Saleable and
Desirable by Fitting it with
the MORROW.

ECLIPSE MFG. CO., ELMIRA, N. Y.

NEW YORK BRANCH:
105-107 Chambers Street.

FREDRICK ADJUSTABLE HANDLE BARS —ARE— MECHANICALLY CORRECT

FREDRICK MANUFACTURING CO.
150 Nassau St., New York City, U. S. A.



All American wheelmen who desire to keep themselves posted upon matters concerning the cycle in Europe, its trade, mechanics, and sport, should subscribe to

THE CYCLIST

AND BICYCLING AND TRICYCLING TRADES REVIEW.

The only recognized authority of English trade and manufacture. Sent post free to any part of America for one year, \$3.25. American manufacturers having novelties in machines or sundries to introduce should advertise in

THE CYCLIST.

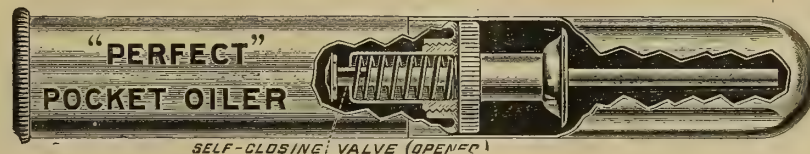
Terms on application to

ILIFFE SONS & STURMEY, Ltd.,

19 Hertford Street, Coventry, England.

Members of the American Trade visiting England are invited to call at THE CYCLIST Office, at Coventry, or at 3 St. Bride Street, Ludgate Circus, London, E. C.

"PERFECT" OILER.



25c.

A few of MANY UNSOLICITED Testimonial Letters.

"WE VOTE IT A SUCCESS,"—Pope Mfg. Co., Hartford, Conn.

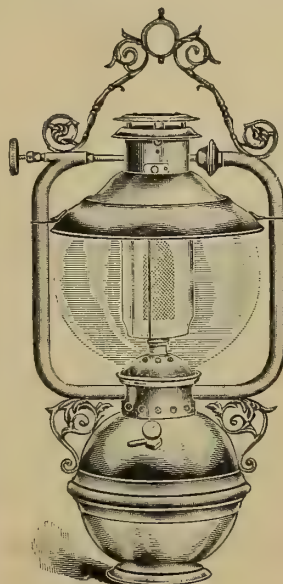
"WE ARE MUCH PLEASED WITH THEM,"—Warwick Cycle Mfg. Co., Springfield, Mass.

"THEY GAVE THE BEST SATISFACTION OF ANY OILERS WE SOLD,"—Keller & Walker, Moline, Ill.

"JUST THE THING I HAVE WANTED FOR YEARS,"—F. E. Worth, Indianola, Iowa.

"THE ONLY OILER THAT DOES NOT LEAK,"—W. D. Anderson, Dallas, Texas.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.



Outdoor.

THE NULITE

750 CANDLE POWER

ARC ILLUMINATORS

Produce the finest artificial light in the world
SUPERIOR TO ELECTRICITY OR GAS
CHEAPER THAN KEROSENE OIL

1/20th Century Revolution in the Art of Lighting.

They darkness into daylight turn,
And air instead of money burn.

No Smoke. No Odor. No Noise. Absolutely Safe.

They are portable. Hang them anywhere.

WE ALSO MANUFACTURE

TABLE LAMPS, PENDANTS, WALL LAMPS,
CHANDELIERS, STREET LAMPS, ETC.

The BEST and only successful

Incandescent Vapor Gas Lamps

made. They sell at sight. Nothing like them.

A SNAP FOR BICYCLE DEALERS.

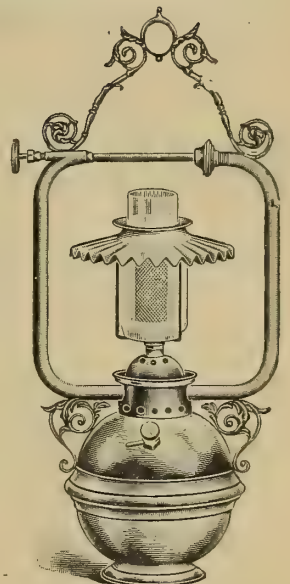
Agents wanted everywhere.

Write for catalogue and prices.

CHICAGO SOLAR LIGHT CO.,

56 FIFTH AVE.,

CHICAGO, ILL.



Indoor.

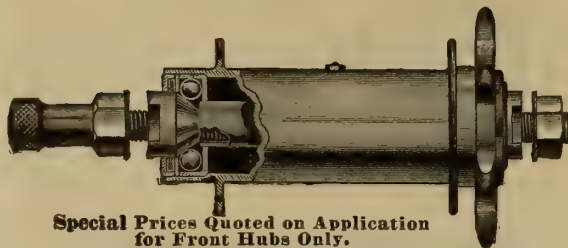
THE NEW CROWN.

1900



PATTERN.

WE WANT TO FIGURE WITH LARGE TRADE.

CHAS. E. MILLER, 99 Reade Street,
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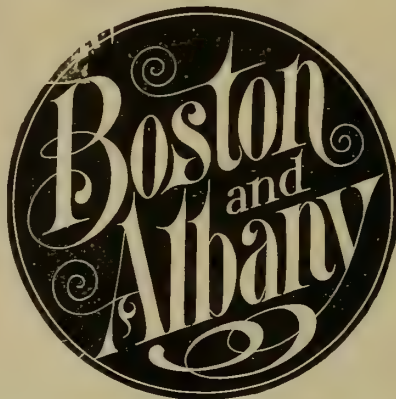
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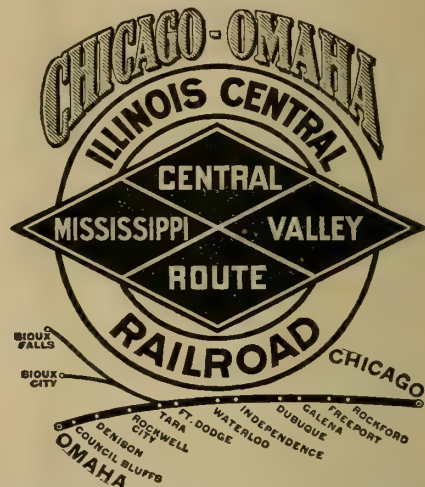
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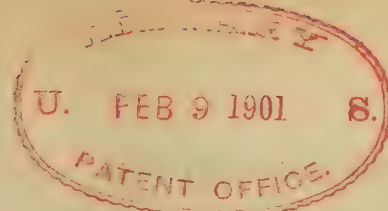
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The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., November 8, 1900.

No. 6.

TIRE DEAL OFF

Negotiations Finally Fail and a Most Peculiar Situation is Created.

After days and nights and weeks of argument and conference and negotiation, the best laid plans of the tire manufacturers to reach an agreement relative to unguaranteed tires have gone for naught. The compact that had been outlined and that awaited only the signatures and seals of the parties in interest has been torn up, and the makers are going their separate ways without regard to one another.

Late last week it came out that the negotiations had finally fallen through. At that time the Diamond Rubber Co. issued an open statement announcing the fact. The Diamond people expressed themselves in this wise:

"The efforts of the tire manufacturers to agree with the licensor upon a modification of the prices which would be equitable to all the manufacturers have been unfavorable.

"As a result, there is no other legal or honorable course for any tire manufacturer to pursue than to respect the mutual agreement between licensor and licensee. In all probability there will be evasions and violations, all of which it is possible for the jobber to take advantage of, although we doubt if the results will be profitable to jobbers in the long run.

"In view of the situation, we have decided that it is necessary for us to stand firm, on the minimum of \$2.75, and that we shall bring our quality of unguaranteed tires up to such a point as to make them full value for the price paid. The tires will be such that they can be safely guaranteed by customers."

The failure of the negotiations is really in the nature of a surprise. After several disagreements, the tire makers finally reached an agreement based on the reduction of the minimum price of unguaranteed goods and withdrawal of the Hartford Rubber Works from that market. The agreement was not signed at the time it was reached, as it required legal form; when this was arranged

the meeting for ratification of the compact was held, but instead of the expected ratification there was an open rupture. The meeting was full of sulphur, but the exact cause of the break cannot be learned. The Diamond Rubber Co.'s statement makes it appear that Colonel Theodore A. Dodge, as the head of the company operating the Tillinghast patent, refused to sanction the agreement.

However that may be, the Hartford Rubber Works is again selling unguaranteed tires, and the situation all around is peculiar and aggravated. Quotations of less than \$2.75 have been made, but there are few buyers. The larger jobbers do not know if the bottom has been reached, and are naturally loath to place orders.

On the other hand, the Tillinghast license requires that if any licensee violates the price of \$2.75 the licensor is bound to proceed against him and cancel his license. Only this season action of the sort was taken against the Goodyear Tire and Rubber Co.; the Ohio court ruled against the Tillinghast interests, thus making the result of any future litigation difficult to even guess.

How it will all end or how the situation will be cleared is shrouded in a maze of doubt.

Want Salaries in Full.

Suit has been brought at Indianapolis, Ind., by G. H. Thayer, jr., and George W. Marble against the American Bicycle Co., the question at issue being the validity of the contracts which the latter concern made with the heads of the factories it purchased at the time of its formation.

The suits are brought for \$25,000 damages in each case, and have been transferred from the local to the Federal court. The plaintiffs were the principal owners of the capital stock of the Indiana Novelty Manufacturing Company, of Plymouth. On May 18, 1899, they agreed to sell, and did sell, to the American Bicycle Company all of the capital stock of their company. It is alleged by the complainants that under the contract of sale they were to be employed for five years as managers of the new concern at a salary of \$5,000 per year. They further state that they entered upon their duties on May 18, 1899, but were discharged on March 19, 1900.

SPOKE SUIT DRAWN

Jury in International Case Fails to Agree—Further Action Unlikely.

After being out about twenty-four hours the jury in the \$175,000 damage suit brought by Brown Brothers, of London, against G. J. Capwell, et al. was discharged last week having been unable to agree on a verdict. It is said that the vote stood six to six.

The result is a virtual victory for the defendants. The only recourse the plaintiffs have is to begin a new suit, and in view of the heavy costs of the present one, and the uncertainty attending a fresh trial it is extremely doubtful whether this course will be taken. The task of bringing over witnesses from the other side is alone almost a sufficient reason for leaving the matter alone.

When the case was taken up last week William J. Allen, one of the defendants, was placed on the stand to explain the workings of the three bicycle spoke machines examined by the jury at the factory.

Stephen W. Goodyear, of Waterbury, testified that, in his belief, the bicycle spoke machines are practical and work successfully. He contradicted the testimony of the plaintiffs' expert, Mr. White, that the combination of rolling and swaging is a failure. He said that he examined the machine in its infancy, saw it operated in 1897, and saw machines working October 24. The machine was a success in 1897, and it is a success now. There is practically no difference between the machine of 1897 and that of today.

At the next session of the court the defendants called several mechanical experts. Among them were Professor Charles K. Richards, of the Sheffield Scientific School at Yale, of Waterbury; Amos Whitney and Charles E. Billings, of Hartford. They testified that they had seen the machines for making bicycle spokes in operation by the American Specialty Manufacturing Company, and they pronounced them to be a commercial and mechanical success.

Albert Brown, of the plaintiff firm, the only member of Brown Brothers who has been in attendance at the trial, was called as a witness for the defendants. He testified that from the time the machines were put in by the firm to the time the factory closed, spokes in England had dropped in price from 30 shillings per thousand to 16 shillings.

In his argument before the jury, defendant's counsel asserted that the suit would not have been brought had it not been for this fall in spoke prices, meaning evidently that their manufacture thereby ceased to be profitable to Brown Brothers.

COMFORT SACRIFICED

Speed Cuts too Great a Figure in Motorcycle Invention—More Comfort Needed.

Paris, Oct. 26.—The way in which the motorcycle is being ignored by the Automobile Club and the Moto Club in their very interesting programmes of trials would seem to imply that these bodies regard the motor machine as having about reached finality. Makers continue to build them to standard patterns, and so long as buyers purchase these machines manufacturers are quite content and do not seem disposed to spend heavy sums of money on experiments.

RESULTS OF RACING EXPERIENCES.

The present types of motorcycles are the outcome of the experiences of racing cyclists. The professional motocyclist doesn't care much for comfort, and if he has a good saddle he rarely uses it in racing, but either sits back on the petrol tank or else stands upon the pedals. All he wants is a powerful and reliable motor, which may jerk the machine to pieces for all he cares, providing he can get through to the finish before the collapse comes. We have thus a high powered motor tricycle which is not altogether comfortable for touring purposes, and is not a convenient instrument for driving about in busy towns. Makers have given most attention to the motor, which is economical enough, and is perhaps all that can be desired, but they appear to have neglected the important matter of fixing the motor to the machine in such a way as to suppress vibration and secure easy running, at the same time simplifying the mechanism by doing away with the complication of taps.

VIBRATION THE BUGABOO.

The thing that the average cyclist most complains of is the vibration, and this suggests the question whether it is really necessary to fix the motor on the "bridge," or second axle above the driving axle, or on the frame and gear it down by spur wheels. By such an arrangement all the vibration is felt throughout the frame, and the only remedy provided is a large padded saddle, with big springs, which only gives imperfect protection. So long as makers adhere to the present system of making motors a part of the frame it is not easy to see how the vibration can be overcome. But is it necessary to give the motor such a rigid bed as is afforded by the axle bridge? Of course, this would be the case if the motor were geared down by spur wheels, as is the almost general rule, since if the wheels were not properly engaged they would lose a great deal of their efficiency, and, moreover, would be conducive to wear and tear. But there is no reason why the spur wheel should not be replaced by a belt. If belt transmission will do on cars of two or three tons it ought to be good enough on tricycles, and, in fact, it gives excellent results on the Werner bicycle. Other things being equal, the

belt is superior to the spur wheel, because it is lighter and smoother and silent in running, and the slipping difficulty would be easily overcome on a machine like a tricycle. Or, if the belt be not suitable, it would be possible to fall back upon the chain.

HOW VIBRATION MIGHT BE REDUCED.

My suggestion for a tricycle would be something as follows: The motor would be carried on a frame attached to the back stays and a certain elasticity would be given to the frame through the medium of strips of steel. This would "give" to the vibration of the motor and prevent its being communicated to the machine. The motor would be parallel with the plane formed by the back stays, and at an angle to the driving axle, so that the motor would move in the direction of its axis without affecting the tension of the belt or chain. The belt itself would probably serve to check any excessive vibration of the motor, but if this be not sufficient the cylinder bottom could carry a short plunger engaging in a tube fixed rigidly on the back stays. The top of the tube should be closed and the top of the plunger packed, so that the tube would act as an air buffer for the motor in its upward movements. If the buffer could be dispensed with, so much the better; but if used the vibration would be so much absorbed by the spring frame and compressed air that little of it would reach the machine. I do not make this suggestion with the idea of its being worked out successfully in practice, but merely to show that there are more ways of fixing a motor to the tricycle than the one now in use, which gives so much discomfort to the rider. Nor do I think that inventors would have any great difficulty in devising a system of gear by which the machine can be managed with one or two levers at the most, the same as is being done in some motor cars. Builders of automobiles aim at simplifying their mechanism so that they can be managed in the easiest possible manner, but makers of motorcycles seem disposed to let things remain as they are, under the impression, apparently, that if people buy the machines they must be satisfied with them. It is for this reason that I think a great deal could be done if the clubs would organize trials and competitions of motorcycles, instead of confining the whole of their attention to motor carriages, and give awards for something novel and really effective in the way of suppressing vibration and simplifying the general arrangement of the machinery.

Evidence of Earnestness.

The Hygienic Wheel Co. are deeply in earnest in their effort to make their cushion frame the mark of the really high grade bicycle. Within the past three weeks they have refused orders amounting to \$6,000 from manufacturers whose goods were not of that class. Incidentally, the Hygienic people are circulating some new literature "making points" for cushion frames, which is as attractive as it is effective.

LONDON AGREES

Vibration Must be Reduced—What May be Done in That Direction.

London, Oct. 23.—At present the majority of the purchasers of motorcycles in this country are men who habitually ride long distances, and as a consequence there are signs that a general feeling of discontent is being aroused with regard to the vibration to which the present pattern of machine exposes the rider. Our roads are none too good, and in or near large towns are often hard and rough, so that even an ordinary tricycle produces a good deal of shaking.

MOTOR TALK OF VIBRATION.

When the machine is propelled at perhaps double the average cycle speed this drawback is greatly increased, and there can be no doubt that the complaints which are being made are well founded. I fully expect that the doctors will take up the matter and try their little best to put a few unwanted spokes in the motor wheel of progress, just as they did in the case of the bicycle. But, candidly, the motor tricycle as at present made does offer them more reasonable grounds for attack. I think that at the shows we shall see some improvements in this direction, although these are not so easy of accomplishment as many people appear to suppose. For instance, the cycle has never been a vehicle on which adequate springs have been possible, although for the most part this was owing to the loss of power which such contrivances invariably caused. With the motor, and especially with the present mania for high powered engines, we can afford a slight loss, and indeed it may come cheaper in the matter of fines.

SPRING FORKS NOT ADEQUATE.

But in the case of the motor tricycle I fancy that it is of comparatively little use adopting a spring front fork only, because a great deal, in fact most, of the discomfort experienced when the machine is passing over a rough road is due to the amount of side shaking to which the rider is subjected. It would therefore seem that the first improvement in this direction is to devise some plan of mounting the main axle upon suitable springs, and as the rider only requires to use the pedals to a slight extent any variation which such a system might entail in the distance between the crank-bracket and the saddle would not materially matter. But in this case the machine would have to be provided with a proper pair of footrests in place of merely the free wheel clutch now so popular with the makers. It is, however, already worthy of note as bearing upon this question that a good many of the older motorists habitually employ footrests instead of keeping their feet upon the pedals. This may not do so

well when pure speed is the object, as the centre of gravity is raised, but it is vastly more comfortable, which is the great point with most people.

LIKELY SUGGESTIONS.

The present enormous vibration to which the motocyclist is exposed will, I think, be far more easily overcome in the case of a quad than is possible where a tricycle is concerned. The quad frame lends itself so entirely to a double pattern, wherein a secondary frame, supporting the saddle and footrests, can be hung upon suitable springs, and, providing that the handle-bar be hinged upon toggle joints after the manner of the old "Whippet" safety, a machine of this class should be as comfortable as a small car. Moreover, if an apron be attached to the handle-bar and secured at the bottom to the frame of the machine, the rider's legs would be protected from the weather, which is also a great point and one which is by no means so easily attained in the case of a tricycle. I anticipate that so soon as manufacturers have taken more largely to the production of motorcycles in quantities these detail improvements will rapidly come to pass.

The only objection to the employment of four wheels for a machine for one rider lies in the fact that it is much more costly to produce, and that the price of the extra tire is, as things in the rubber trade now are, a very serious item for the purchaser who is not too well off. There is also the fact that there is a tendency for the front wheel tires of four wheeled cycles to wear out much more rapidly than the drivers, which action also takes place even when the machine is only constructed to carry one rider. The same increased wear was noticeable in the case of an ordinary pedal-propelled four wheeled cycle which was brought out some years ago. Probably a good deal of the trouble arises from the fact that to obtain a truly differential steering gear is a difficult matter, and that most of the patterns now in use, while fulfilling the requirements in a rough manner, are not actually accurate, so that one or other tire is constantly subjected to a cross and rolling strain to which it should not be exposed. Yet we do not want to increase the complication of a steering gear; the aim should rather be to render it less costly and more efficient.

New Jobbing House Enters.

The Cleveland (Ohio) Distributing Co. has been organized in that city, and write that they are in the market for both cycle and automobile material. They report that they are incorporating with a capital of \$20,000, of which 25 per cent will be paid in.

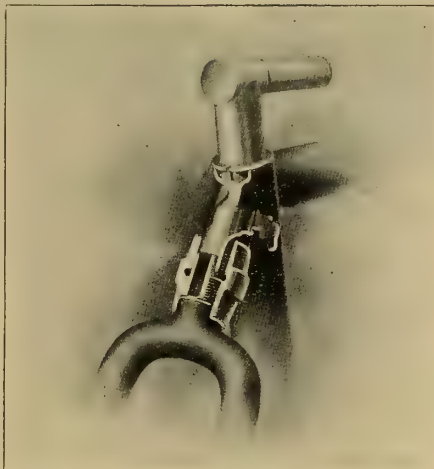
Judgment Given and Property Sold.

The Columbia Manufacturing Company of Niles, O., was given judgment last week for \$4,093.25 against the Byrnes Handle Bar Company and property in Niles was ordered sold.

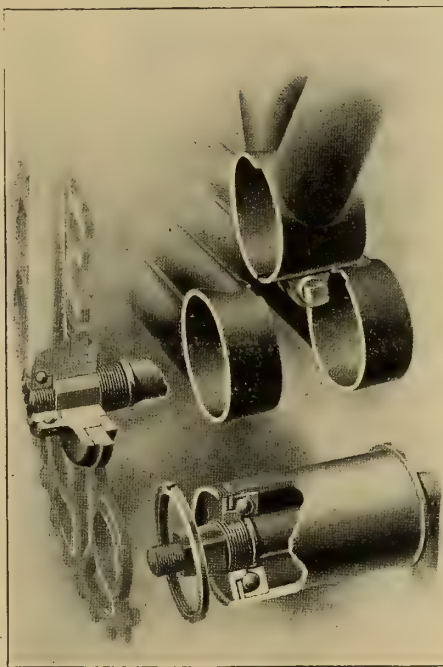
EAGLE'S SURPRISE

Its Expected Bottom Bracket Supplemented by a Jointed Frame for 1901.

While it was known that the Eagle Bicycle Manufacturing Company, of Torrington, Conn., had some sort of a surprise in store for 1900, nothing definite concerning it was permitted to escape until this week, when the surprise was officially made public. It is



a mechanically jointed frame—a sure enough surprise, for while ideas of the sort had seen the light, no house of wealth or reputation had before undertaken its exploitation or launched it commercially.



The Eagle people, however, have done this, and in no half hearted fashion. The jointed frame will be a feature of not only their special racing models at \$60 and \$50, but of the Eagle roadsters, at lower prices, as well. Eagle prices, by the way, will range from \$60 to \$25. To use the Torringtonians' own language, they aim "to offer the most com-

plete line of bicycles ever made in one factory."

The accompanying illustrations show the new Eagle frame; it is made in two sections, the front frame entirely separate from the rear frame. At the crank bracket an internal sleeve, which contains turned steel bearings, holds the frame sections securely in place, these sections being fastened by a locking ring and, when fastened, have every appearance of the ordinary frame construction.

The frame is joined at the seat post cluster by a collar having both right and left hand threads. Simultaneously with locking the frame together, an internal binding plug is forced against the seat post, fastening it securely—a simple and effective method of accomplishing two results with one operation.

The frame can be taken down and put together again in a very short time, and is easily repaired in case of accident. The frame will be made either with the Eagle quad stay rear construction or with single stays, as are commonly used.

Novelty in Gas Lamps.

Otto Scharlach, of Nuremberg, Germany, has invented and is marketing an acetylene lamp in which two burners are fitted for alternative use. These "revolver" burners, as they are called, work on a pivot, and if from any cause the one in use fails to work it is only necessary to turn the pivot to get the other one into action.

A useful hint is supplied by the inventor as regards cleaning burners, and he gives it practical value by designing a simple little affair in connection. He says it is manifestly wrong to attempt cleaning a burner by blowing through it from the lower side, as the orifice is gradually getting smaller as it nears the top, and by blowing from the bottom the dirt is only wedged tighter in the passage. This is the usual method, because no way has been devised of fitting a pump to the top of the burner. The German inventor has, however, brought out a little rubber mantle with a screw opening, to which the pump can be attached when the mantle is slipped over the burner.

Sues Bank for Money Paid.

When Allan M. Culver was appointed trustee in bankruptcy of the Silver State Cycle Company, of Denver, Col., on August 2 he says he discovered that the estate of the company was insufficient to satisfy half of the indebtedness. He says that he discovered that the company owned to the Central Savings Bank \$6,000 and to others \$10,000. On July 25, he says, the cycle company transferred to the bank a note, book account and bills receivable amounting to \$3,500. This, he says, gives the Central Savings Bank a greater percentage of the amount due them than any other creditors. He brought suit in the District Court last week asking that the bank return the \$3,500.

Negotiations are in progress looking to the consolidation of the Hopkins-Sears Co. and W. S. Riddell, both of Des Moines, Ia.



The G&J Tire Co.

Indianapolis, Ind..

Dear Sirs:-

Let me take the liberty to tell you what I think about your "G&J" tires:

Ten years ago as retaildealer and now the largest importer of American Bicycles in Holland, I have used all kinds of tires on the market, but I am thoroughly convinced, that the "G&J" tire is by far the most comfortable one and for easy repair it has no equal.

At first by introducing the "G&J" it has cost me hard work-time and money, but having the fullest confidence in the superior quality and your straight forwarding business policy, I have pushed the "G & J" with courage and pleasure as hard as human beings can do, so I have at present more than 250 Bicycle Agents who give the preference to the "G&J" above others; they recommend them strongly.

I feel sure that there is no question of its superiority over other tires, and it is a very nice durable tire. On first class wheels I do not want a other one and for 1901 I expect to use the "G&J" on a thousand or 1500 high grade wheels exclusively,- you will hear from me just as soon I have arranged for the right wheel, at the right price, from the right makers.

I am

Yours truly

Klaas Baving

THE BICYCLING WORLD

FOUNDED 1877
and MOTOCYCLE REVIEW

In which is Incorporated
"The Wheel" and the "American Cyclist."

Published Every Thursday

By

THE GOODMAN COMPANY,

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(154 Nassau Street)

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TELEPHONE, 2652 JOHN.

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Entered as second-class matter at the New York, N. Y., Post Office, September, 1900.

General Agents: The American News Co., New York City and its branches.

Change of advertisements is not guaranteed unless copy therefor is in hand on SATURDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, NOVEMBER 8, 1900.

The Distressed Galoot Turns Tail.

When a lobster takes affright it scuttles to its retreat ungracefully, but with its business end toward the direction of danger. When a rat takes affright it turns tail and darts into its hole, in which respect the Cycling Gazette resembles the one more than the other.

After attacking the Bicycling World and mailing some of these attacks in personal communications to the trade, it received a broadside in return; it did not wait for a second one. It turned tail and plunged into its hole. After saying what little it could say in infantile fashion, it now announces that it will enter into no controversy with the Bicycling World or any other paper.

It is just as well. The methods of the Cycling Gazette are as indefensible as they are contemptible and grossly unjournalistic. They will not stand the light of truth and publicity. Its scuttling into its hole is tacit admission of the fact.

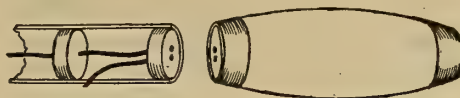
Light on Motocycle Management.

To the average man who has never seen or handled a motorcycle, its control and management is "a thing of dread and danger."

Comparatively few are aware that it is controlled literally by "a twist of the wrist."

When the fact is generally appreciated, a deal of unnecessary prejudice and timidity quickly come into its own.

The accompanying illustration will serve to show how superbly simple is the control of the machine.



In the left half of the handlebar two wires are arranged as shown; the ends of these wires about similar wires fixed in the left grip. Everything else being ready, if it is desired to start, the grip is turned away from the rider; this brings the wires together, and completes the electrical circuit and applies the power, and the machine moves forward. If it is desired to stop, the grip is turned toward the rider; the wires are thereby instantly disconnected; this breaks the circuit, and the power ceases.

A twist of the wrist does it all, and the twist is given as quickly as the eye can wink.

Once the knack is acquired it becomes second nature, and in stopping the machine in a moment of danger it is an impulse as natural and more effective than backpedaling. With this short stop controlled by the left hand and a powerful brake by the right, the motorcycle is as safe if not safer than the bicycle in general use.

The speed, too, is as simply regulated. The mere pushing of a small lever in one direction or the other, permits one to start or to travel at a crawl, or at a sprinting pace, or at any pace between.

When these things are more generally understood that type of cycle that robs heat, hills and headwinds of their terrors and that is controlled by a twist of the wrist, will begin to really bound into the realm of public favor.

Generally speaking, the motorcycle is as yet a sealed and unstudied book to the rank and file of the trade. To cyclists at large it is either a mystery or a curiosity.

There is need of education all around. These remarks on the control of the machine will serve as an object lesson in the A B C's of motocycling.

How Trade Journals Score.

Some advertisers cheerfully pay \$300 or \$400 per page for space in the expensive magazines, because they may bring 300 or 400 inquiries.

The same advertisers often quibble over \$30 or \$40 per page in their trade journals, which may bring 3 or 4 or 30 or 40 responses.

Yet one reply from the latter frequently means an order for more than all of the magazines' 300 or 400 replies combined.

The magazines sell one article one time to one person.

The trade journal sells many articles many times to one person.

The one deals with the consumer; the other with the retailer.

The consumer buys one article one time; the retailer buys dozens and grosses of the same article many times.

Many makers refuse to see it this way, but the fact remains and is indisputable.

Fair Play for the Trade.

The Bicycling World stands for the bicycle trade first, last and all the time.

As it has said before, it believes that the motor bicycle and all other forms of motorcycles are but logical developments of the corresponding types of manumotive cycles.

The Bicycling World has said, and reiterates its belief, that the manufacture and sale of motorcycles rightfully and logically belong to the bicycle manufacturer and the bicycle dealer.

We have warned the trade of the efforts that are making to divert the business to the automobile industry, and we repeat the warning.

We repeat it at this time because we regret to note that certain publishers of certain cycling journals who are issuing automobile publications as well are sharing in these efforts. The clearly defined claims and interests of the cycle trade in the motorcycle are being sacrificed in favor of the automobile industry. The first news and the best information and argument affecting motorcycles is being given to the automobile journals, appearing afterward, if at all, in the respective cycling publications of the same publishers.

We do not question their right to do as they please in the matter, but we do regret the attitude assumed. It suggests strongly an attempt to carry water on both shoulders at the same time while leaning toward the automobile. It suggests as strongly lack of faith in the future of the cycle trade and

lack of constancy to the pillars that have long sustained the publications concerned.

To our mind the future of the motorcycle is as certain as the sun. The growth may be slow and gradual, but it is none the less certain. As between the automobile and the motorcycle, everything favors the latter; it will outsell the automobile ten to one, if not fifty to one.

The very conditions existing in France, as described by our Paris correspondent in our last issue will ensue here; the motorcycle will gain the ascendancy and retain it.

We would have the bicycle manufacturer and the bicycle dealer reap the reward when it accrues; it is rightfully theirs, and they deserve it, and it is the *Bicycling World's* most cherished desire that it be not permitted to escape them. We are working and writing to that end.

The publishers of the *Bicycling World* are also the publishers of the *Motor World*. The one is devoted to the bicycle, which means motorcycles; the other is devoted to the automobile. The two interests are separate and distinct. The one is the logical development of the bicycle; the other the equally logical development of the carriage.

Cycles and carriages have rarely mixed; the industries were never one. With an era of reinvigorated profits in sight, there is no reason for the existing effort to now mix or join them.

The cycle trade should come into its own. We hope it will. If it does not, it will not be for lack of persistent endeavor on the part of the *Bicycling World*.

Small Tires and Vibration.

Not since the days of the pneumatic tired safety has there been so much complaint of excessive vibration as is heard at the present time.

Coming after the high wheel, where the major part of the vibration was absorbed before it reached the rider, the safety was soon found to be unendurable. Spring frames were the only alleviation possible until the coming of the pneumatic tire; and when the latter made its appearance it was as a vibration-absorber that it owed its greatest popularity. To such an extent was this feature recognized that spring frames received their death blow, the air tire being held to do everything—and more—that the former did.

However, that was in the day of air tires of generous proportions. Plenty of air was held to be the cardinal principle, and the result was tires that were real air cushions;

big and pumped just hard enough to keep them from dragging or touching the rim.

From that day to this—well nigh a decade—the pneumatic tire has been decreasing in size and consequently in comfort. The public has learned that small tires pumped hard and ease of running are synonymous, and the knowledge has colored their actions ever since.

Comfort is desired, to be sure; but not at the sacrifice of ease of propulsion. If a rider could have both he would jump at the chance. But being compelled to take one and leave the other he seldom hesitates.

The worst of it is that the complaints of vibration become more vigorous each season. The use of the small, hard tires does not accustom the riders to their lack of comfort nor reconcile them to their shortcomings. The latter come more to the front the longer they are used.

But two ways of escape are in sight. One is to use larger tires, and the other is to call in the aid of cushioning devices of some sort.

The latter is the way that seems to find most favor. In fact, there is a very strong drift in this direction; one that may increase in force until it attains huge proportions. It is too early to form a judgment of this, however.

Of a desire for larger tires there is, as yet, absolutely no sign. This being so, it is matter for congratulation that the trend toward even smaller diameters appears to have been checked.

Little Danger of Their Return.

For more years than we care to remember, we have been hugging to ourselves the belief that the retail situation would be improved by the retirement, voluntary or enforced, of a considerable proportion of those engaged in it.

Each time there came a bad season the cry went up that at last there would be such a slaughtering—not of the innocents but of the unfortunates or the undesirables—that an almost ideally healthy condition would follow.

The halt and the lame would get out at last—not because they wanted to or thought that they ought; but simply because it was an impossibility to hold on longer.

The result would be, we congratulated ourselves, that deserving retailers would at last come by their own.

They would reap the reward of their long service in the cause, be repaid for their long and enforced abstinence from the good things enjoyed by their fellows in other lines of business—the profits.

But each time these predictions proved to be inaccurate, these rejoicings premature. The slaughter turned out to be no slaughter, but simply a retirement only too temporary.

Out the barnacles, the incompetents, the ne'er-do-wells, would go when the end of the season came.

But they always returned promptly with the first signs of a rejuvenated season. Where they had been or how they had managed to eke out a precarious existence in the mean time was another matter. It was sufficient to know that, like birds of ill omen, they never failed to gather for the anticipated feast.

Of course they never got enough of the feast to satisfy them; but, and equally of course, they took from the deserving portion of the trade sufficient to cause them to wear a lean and hungry look, too.

This performance went on regularly for a great many years, and still hope sprang eternal in the breasts of those who wished the trade well. There must be a change, they said; human endurance could not hold out forever, and when it gave way then their predictions would be fulfilled.

It seems the most natural thing in the world, just at this time, to indulge in the usual felicitations on this subject. Consequently they are being indulged in.

The long looked and hoped for and ardently-to-be-desired happening is about to be realized. The past season, with its lessons, plainly in sight and pointing with unerring precision to a no-longer-to-be-doubted consummation, has done the business. The exodus is really in progress—in fact, is almost over.

The dealers who have for so long lagged superfluous on the stage have at last left it. Unable to longer bolster themselves up with hope, and finding it out of the question to longer play the time honored game of lying low until the storm—the winter—blew over, they have at last thrown up their hands and acknowledged themselves beaten.

There is, of course, just the faintest cloud in the sky. The same old game may be worked, the same reopenings be forced on an unwilling and protesting trade in the spring. There can be no absolute certainty on this point until the crucial time comes.

But there is joy in the thought that every indication is against such possibility.

Goodby forever has been said by the majority of these little regretted workers in the cycling field. The signs of the times are too plain for even them to overlook them.

HIS FIRST EXPERIENCE

The Novice and the Motocycle—Not as Difficult as He had Imagined.

Contrary to the general belief, motorcycles are not difficult to handle. To any person of ordinary intelligence, the task of learning to manipulate them—at least sufficiently to avoid any awkward contretemps—is one easily solved.

On the part of the public there is a feeling that it is just the other way. The question is sometimes asked whether it takes an engineer to manage a machine driven by a gasoline motor; and, although this may be an extreme view, it is only slightly exaggerated. The apparent complexity of the motor, and the host of accompanying appliances, naturally lead the layman to suppose that only a professional can manipulate the machine with any degree of success.

TO OBTAIN BEST RESULTS.

To get the best results out of a motorcycle a considerable degree of skill and ample experience are necessary. The two go hand in hand; nor is it easy to say which should be placed first. The "know how" is not of much use unless it is supplemented by some mechanical ability. It is not necessary, of course, to be a mechanic. But some aptitude with tools is almost indispensable if the machine is to be put to rights in short order whenever it takes it into its head to go wrong.

This "know how" and this manual dexterity, however, will both come in time. The rider will soon see that it is desirable that he should be master of his motorcycle, and a little diligent application will make him such.

CAN BE RUN BY NOVICES.

The main point, however, is that the motorcycle can be placed in the hands of a novice and be made to render good service at the start-off. This fact, which is all the more gratifying on account of the natural belief—based on the appearance of the machine and its numerous parts—that it is just the other way, should be impressed on everybody likely to have any connection with the motorcycle. Beginning with tradesmen, it should be made so plain that he who runs may read that the motorcycle can be run by a novice; and, furthermore, that the task of becoming an adept is not only a comparatively easy but a pleasant one also.

As having direct bearing on this phase of the matter, the experience of the *Bicycling World* representative is both timely and interesting. As is probably the case with many others who have only theorized as yet on the subject of motorcycles, he entertained the belief that a long and tedious novitiate would have to be undergone before the management of one of the machines

could be undertaken with success. Very pleasant, indeed, was the awakening.

The first lesson was taken in the summer, and proved to be in the nature of an agreeable surprise. A journey was made to the factory of the Waltham Mfg. Co., where a tricycle and a driver were placed at the writer's disposal. The instructor was Gaston Plaintiff, whose business of selling these machines rendered it necessary for him to become familiar with their working.

TEACHER AND PUPIL.

With Plaintiff in the saddle and his pupil standing on the axle, the shoulders of the former firmly clutched, the start was made. The abominable roads in the vicinity of the factory were soon left behind and the broad expanse of Commonwealth avenue reached. Here was ample room for manoeuvring, with no serious consequences likely to happen if the power should be put on when it ought to be taken off, or a right turn made when a left one was the proper thing. Then everything was ready for the instructions.

First the tricycle was tried, pedal-propelled. The expectation that a little tricycle riding indulged in a dozen years or so ago would prove of benefit on this occasion proved to be a fallacy. The effort to steer with the body, as on a bicycle, was futile, and after running into the gutter once or twice the lesson was learned—that the steering was done entirely by the handle bar and that any attempt to assist it only made matters worse. This done, the ground was cleared for the actual work.

THE AIR AND THE GAS.

"First turn on the gas and air levers," said Plaintiff, suiting the action to the words. "Remember that while the obtaining of the proper mixture is an art in itself, it is acquired only in time. So don't bother much with these two levers. As they are now they will give you a mixture that will do the work, and you will have plenty of other things to do to occupy your attention.

"Now, get into the saddle, turn your power on by a twist of the left wrist—thus moving the handle bar grip and connecting the electric ignition wires—and pedal sharply a few times, first seeing that your compression lever—this one—is open. Then when the explosions begin to come regularly stop pedalling and close the compression," were the next instructions.

NERVOUSNESS WEARS OFF.

Brief and simple as they appear now, these injunctions gave the writer plenty to do, especially as the tricycle showed some disposition to go to one side or the other of the road. However, they were put into effect in some fashion, and the result was magical. Following the labored progress of the machine for the first few yards, came a series of jerks and then a shooting forward. Pedalling stopped almost involuntarily, the hands held the grips firmly, the left one hard pressed to keep the power on, and soon the initial nervousness over the steering passed away.

This done, there was time to catch breath

and realize what was actually taking place. The machine was speeding along at a nice pace, and the sensation of having a motor do the work instead of the rider was as novel as it was exhilarating. Most fascinating of all was the ability to turn off the power by a twist of the wrist, and then to apply it again and feel the machine shoot forward almost instantaneously. By practising this a few times, and experimenting with the brake, confidence was engendered, as it was evident that the machine was under complete control even at the hands of such a tyro as now bestrode it.

TURNING NOT SO EASY.

Having proceeded a little way, and being eager for more knowledge, a return to the Mentor waiting at the starting point was next in order. To accomplish this it was necessary to make a turn; and, although the road was wide, this was not the easiest task imaginable. By dint of slowing and starting, however, it was finally accomplished, and the return journey was made without incident.

A creditable stop was made, except that the compression lever was forgotten and the motor "kicked" a little in consequence. Dismounting, and feeling that the first bunch of instructions was fairly well digested, Plaintiff was approached and asked to map out a second lesson.

THE COMPRESSION LEVER.

"Don't forget the compression lever," he began. "It should be open when you start and closed after the explosions begin to come regularly and the motor is found to be working all right. When you desire to stop it should be opened again, just before the stop is reached. If this is not done the motor will 'kick' and jolt you severely.

"As to starting, this is hard enough with the pedals, and if the compression is left closed it will be practically impossible. The air being compressed, the piston will work very stiffly; and when its friction is added to that of everything else it is almost impossible to overcome it.

"Next comes the speed lever—here," and Plaintiff indicated it, "forward on the left. When that is back, toward you, as far as it will go, the machine will travel at its slowest speed. If you want to go faster, push it forward slowly. Or, when you approach a hill, work your speed lever forward before you start to climb, so as to give the motor a chance to work up to the increased demands made on it.

EXPERIENCE TEACHES FINER POINTS.

"You can experiment a little with the gas and air levers also," he went on. "There are many things that will affect your mixture—the atmosphere, the temperature, the grade and character of the road. Only experience will teach you how to meet the various circumstances, but it won't do any harm to start in early and see for yourself what the manipulation of the levers will do. For example, on a steep hill you will need a greater proportion of gas, and your gas

lever wants to be pushed forward. By moving the levers a little you will soon see whether the mixture needs to be changed.

"One thing more before you start. When going down hill, after the power has been turned off, it is a good idea to open the compression. This makes the machine run a little better, owing to the lessened friction of the motor, and also gives the latter a chance to cool off. In other words, the motor gets a rest, and that is what it frequently needs. Now you are ready, and off you go."

It must be confessed that some of these instructions were not as clearly understood then as they were afterward. But they did not all need to be put into effect at once, which was rather fortunate. Until the machine was well under way and the strangeness of the steering had again been mastered, there was small temptation to experiment with the levers. The tricycle was travelling in fine shape and causing a thrill of delight to permeate the writer's body.

Presently a hill loomed up ahead—one of those for which Commonwealth avenue was famous. Now was the time to test the value of the lesson. Taking the right hand from the bar, the speed lever was grasped and slowly pushed forward. The machine jumped ahead sharply, and the further the lever was pushed the faster it went. The hill was reached and up the tricycle started

in fine style, the pace somewhat reduced, to be sure, but not to any great extent.

This seemed to be a fitting occasion for a trial of the gas lever. So it was pushed up a little, and with good results. Emboldened by this, the air lever was next touched, but a sudden checking of the speed showed conclusively that no more air was needed.

At this point the trial was interfered with by an untimely puncture occurring; and as no provision had been made for such a mishap there was nothing to do but to return to the factory. This was done without inconvenience, the machine being ridden by the *Bicycling World* man alone; the deflated tire gave no trouble, the fact that it was flat being scarcely noticeable.

It had been made very plain, however, even in this short time, that a novice, unlearned both in the theory and practice of motorcycle management, could get on one and give a good account of himself. Instead of being bewildered by the multiplicity of levers and wires and the intricacy of the instructions to be received and digested, the task presented proved to be a very simple one.

It was, in brief, to let the motor do its work with only such interference as the gradually acquired knowledge of the rider rendered desirable and possible. Proceeding on this theory there was scarcely a possibility of failure.

Says Stores Lack Cheerfulness.

Before he left for home Fred T. Merrill, the Portland (Ore.) dealer who recently spent several weeks in the East, going as far as Portland, Me., said that one of the things that impressed him most was the lack of cheerfulness about the average bicycle store in this part of the country.

He said that most of them were dark and uninviting; walls and floors were usually bare, and if the stores were not dirty they looked it. He did not think the dealers properly appreciated the advantages and drawing power of a clean, bright, cheerful establishment.

As the owner of four successful cycle stores in the principal cities of the Pacific Northwest, Merrill ought to know something about it.

Nelson Absorbs Young.

The A. Nelson Mfg. Co., Chicago, have purchased the business of J. B. Young, of that city, and will hereafter make and market the Young rim sprocket and crank extension in conjunction with the Nelson adjustable cone; incidentally, the Nelson people report a highly satisfactory year with the cone.

The Cooper Handle Bar Co. is reported to be moving from Detroit to Fenton, Mich.

Four Things To Keep In Mind



ORIENT "Leader."

That the world's hour record belongs to the Orient Leader.

That the world's mile record belongs to the Orient Autogo.

That the Tailored Orient for 1901 is now ready for delivery.

That the Orient motor vehicle exhibit at the Madison Square Garden was the most complete of any line at the show.

And consider yourself fortunate that you are an agent of the

WALTHAM MFG. CO., WALTHAM, MASS.

DOING WELL IN 'FRISCO

Fine Weather Helps Fall Trade—How Oakland's Price-Cutting was Stopped.

San Francisco, Oct. 24.—From the wheelmen's viewpoint the weather is fine, and dealers say, considering the nearness to the advent of new sample lines, that sales are keeping up remarkably well, while repair shops are running full handed. A trade feature of a cut-rate order relating to the Columbias became an open secret here today, figuratively speaking, as follows: 1900 chainless, reduced from \$75 to \$60; 1900 chain, \$50 to \$40; 1900 Hartford, \$35 to \$30; 1900 Hartford, \$32.50, double tube, and 1899 chainless, \$40, list.

Ruinous competition among East Side (Oakland) dealers and repairers had been going on too long, and so, as missionaries enlisted to bring about a betterment in the business condition of cycling affairs, this quartet of San Francisco bicycle agents, who are personally acquainted with everybody in the trade in Oakland, made a call on the East Side dealers and repairers nearly a fortnight ago: William J. Kenny, president of the San Francisco Cycle Board of Trade; J. W. Leavitt, of Leavitt & Bill; Bert Eiling, assistant manager, cycle department, Dunham, Carrigan & Hayden Co., and W. B. Morrill, of W. B. Morrill & Co. That good progress was made by these missionaries is rightly inferred from the fact that on last Friday evening they again returned to Oakland, accompanied by eighteen other members of the local trade organization, and didn't recross the ferry for home that night, until after the organization of the Oakland Cycle Board of Trade, with Wallace Clark as president and George Poole secretary, had been effected.

Columbia's Clearance Sale.

In the Hartford papers this week the Columbia Sales Department of the A. B. C. is offering Columbias and Spaldings at these prices:

Columbias: Chainless models 65 and 66, \$60, previous price, \$75; chainless model 60 (ladies'), \$40, previous price, \$60; Columbia chain models 63 and 64, \$40, previous price, \$50; Hartford, patterns 23 and 24, \$30, previous price, \$35.

Spaldings: Models 30 and 31, chainless, new price, \$60; models 20 and 21, chainless, new price, \$40; models 23 and 28, chain, new price, \$40; models 18 and 19, chain, new price, \$30.

Feather for the Fisk.

When Stinson covered the long sought 40 miles in 60 minutes last week, his Orient bicycle was shod with Fisk tires—a fact of which the Fisk people are naturally proud and of which they desire the world to be informed.

Banker's Motor Bicycle Ready.

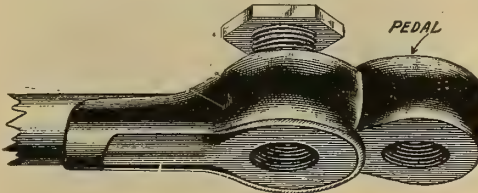
A. C. Banker, who has a two years' lease on the machine shop of the defunct Manson Cycle Company, Chicago, has his motor bicycle almost ready for the market. The machine complete weighs 56 pounds; the 1½ horsepower motor itself scales but 19 pounds and measures but 3¾ inches from outside to outside. Complete, the bicycle will list at \$200, or the motor alone at \$100.

Konigslow has a Cushion Frame.

In his 1901 line of O. K. bicycles, Otto Konigslow, the Cleveland (Ohio) maker includes a couple of surprises—a Leland & Faulconer bevel geared chainless at \$60 and what he terms "a special model with a cushion frame," at \$35. His standard roadster will list at \$35, his racer at \$40 and he will also have "a competition wheel," as he calls it, at \$25.

For Long Cranks and High Gears.

Now that the long crank-high gear argument is up for trial in this country, the A. Nelson Mfg. Co., of Chicago, should profit not a little. With the Young rim sprocket



and crank extension in their possession, they have the very articles necessary to enable the individual rider to put the contention to practical test, without going to great expense.

The rim sprocket is a toothed ring that is bolted to and enlarges the old sprocket, thus affording the higher gear. The crank extension, as the accompanying cut makes plain, is similarly bolted to and lengthens the old crank. The long crank and high gear are thus at the immediate disposal of all who desire to try the combination.

Dividend Will be Small.

An order was made by Judge Hooker in the Massachusetts Supreme Court last week, passing and auditing the accounts of Receiver Lewis, of the Spaulding Machine Screw Company, and authorizing him to make a distribution of the funds in his hands. After all expenses are paid there will remain for distribution among the creditors less than one-half of one per cent.

Acme Coaster-brake Appears.

The Acme Coaster-Brake Company, of Rochester, N. Y., the newest Richmond in the field, has its device ready for the trade. It embodies several original ideas and lists at \$5.

"We feel well pleased with the returns from the *Bicycling World*, and expect to increase our advertising space when our present contract expires."—Fleming (Motor) Mfg. Co.

MAKE-UP OF A SPECIAL

Composite Bicycle that Fairly Bristles with "Features" and Talking Points.

Recently the possibility of newness or novelty in the standard chain bicycle was under discussion; at first the parties to it were almost a unit in declaring that the field was almost barren, but as the talk deepened and ideas were matched it was agreed that a "special" model, in which there was nothing freakish, but which embodied newness enough to give the maker and dealer talking points in plenty, and which would command a special price, could be constructed.

When the several ideas were jotted down the bicycle was made up as follows:

Wilmot & Hobbs scientific tapered frame, Kirkpatrick or Persons saddle, Morse twin-roller chain, Liberty sprocket, Hussey or Sanger adjustable forward-extension handle bar, Curtis self-balancing pedals and 7½ or 8 inch Fauber diamond-square cranks.

Nothing new in tires could be found, but it was agreed that almost any high grade tire, fitted with the Pickett stemless valve, recently illustrated in the *Bicycling World*, would supply the deficiency in this particular.

Business and Prospects Good.

Referring to statements made that the force employed at the Pope plant at Hartford was much smaller than usual, Manager A. L. Pope is quoted by a Hartford paper as saying last week:

"The number of men now actually employed in manufacture of bicycles is fully up to the usual standard for this season of the year, and there has been no more laying off during the months of the past summer than has been customary in previous seasons.

"The Columbia factories have done an excellent year's business and earned a substantial profit, notwithstanding the fact that this has been considered one of the 'off' years in the cycle trade. For several seasons past the greatest business has been done in alternate years, and thorough preparations are being made for a large output for the next year.

"Our plans for the season of 1901 are well under way and we shall have plenty of work for a large force of hands this winter. Talk about the bicycle business being a thing of the past is all nonsense. There are more bicycles in actual use now than ever were before. The riders are not so conspicuous as formerly, perhaps; there may be less so-called 'wheel talk,' and there is less reckless century riding and other forms of overdoing. The bicycle is used nowadays rationally and intelligently, for purposes both of business and pleasure, and such use of it is constantly increasing, not decreasing. The bicycle has come to stay, and the outlook for the future of cycle manufacture conservatively handled on business principles is, in my judgment, excellent."

What Mud and Water Do.

Wet weather is the bete noir of the motorcyclist. It affects his gas mixture, interferes with the perfect working of his motor by clogging the working parts with mud, and does much to interfere with his personal comfort.

Worst of all, however, is the way it plays hob with the electric ignition. It practically doubles the already too great number of ways this can give trouble, and only the most elaborate precautions in the way of insulating the different wires will avail to secure immunity. As it is, if anything goes wrong at such times it is well to first examine everything connected with the ignition, as the chances are greatly in favor of thus locating the trouble.

Defects of the contact breaker and sparking plug come under the heading short circuiting through either dirt or water; in some cases either mud or oil, or both, will short circuit the two terminals by which the wires are attached to the contact breaker, and in wet, muddy weather this is one of the points to fly to first; a similar remark, of course, applies to the sparking plug, though in less degree, as it is further removed from the mud, and there is no oil about; on starting off a short circuit may also occur, especially in cold weather, by the condensation of moisture between the sparking points, but this quickly disappears if once an explosion can be produced.

Other points subject to this class of fault by short circuiting are where the wires join the induction coil, and between the coil terminals, but it has to be very wet weather and a long run to effect the latter.

A curious short circuit may be caused in fixing the thick insulated wire which runs from the coil to the spark plug, as, if the insulation be at all faulty in any one part where it comes near the frame, particularly close up to the coil, the spark will fly to the frame instead of going through to the plug. In wet weather it is well to wrap all the terminals exposed to short circuits with gutta percha tissue, so that the whole is inclosed right up to the insulation.

To Import A. B. C. Bicycles.

A limited liability company, with a capital of 100,000 marks, has been organized in Hamburg, Germany, to import and handle bicycles made by the American Bicycle Company; F. Chr. Chandler figures as the manager of the new concern.

Thomas Fixes Their Figures.

The E. R. Thomas Motor Company has set the price of their motorcycles at these figures: Tricycle, 3 h. p., \$350; quadricycle, 3 h. p., \$450; bicycle, weight 75 pounds, 1½ h. p., \$200; racing bicycle, weight 110 pounds, 2¼ h. p., \$250.

Two Hammondsport, N. Y., cyclists, F. Neff and Glen Curtiss, have constructed a motor bicycle, the engine of which, it is claimed, makes 2,500 revolutions per minute.

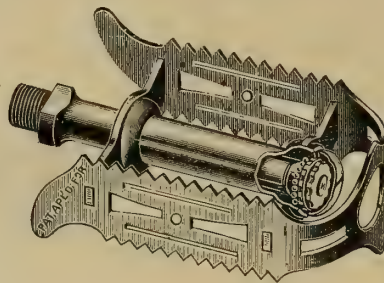
Motorcycles vs. Horses in Indianapolis.

C. G. Fisher, the Indianapolis dealer who was one of the first in the West to take up motorcycles, has been picking up quite a few dollars "on the side" by giving exhibitions at county fairs and by matching himself against running horses.

In Indianapolis recently he hypnotized the authorities into roping off a mile course on one of the principal streets, Capitol avenue, and permitting him to ride against two running horses. A great crowd witnessed the event, and, to their great delight, the horse, Miss Vogel, won; Fisher on his motorcycle was second. The idea of a big place like Indianapolis permitting such a race on a public street is, however, what impresses an outsider.

Pedal and Price Both Differ.

The most recent addition to the pedal trade, the Bickel Mfg. Co., of Shelburne Falls, Mass., now has its product ready for marketing. The accompanying illustration



shows the first Bickel pedal. Its makers claim that it differs from all others in the matter of adjustment: The cone and nut are notched, as may be seen, and the washer being provided with teeth that fit into the notches, it is not easily possible for nuts or cones to jam or work loose; in fact, the Bickel people guarantee that nothing of the sort can happen. The pedal is highly polished and then nickelled on copper, and nothing left undone to make it a thoroughly high grade article. Its makers promise, too, that inquiring jobbers and dealers will find the price uncommonly interesting; like the pedal itself, it is not like others.

"And Dunlop Still Pursued 'em!"

The English Dunlop Tire Company have obtained a favorable decision in a suit brought against a Hamburg export house, which ordered tires for an Australian customer from the rubber factory at Milan, Italy. The goods were delivered in Hamburg for reshipment to Australia, and the court held that the Dunlop company were entitled to claim damages for infringement of their German patent.

One Transfer Made.

Last week the formal transfer of the Middletown, Conn., property of the Worcester Cycle Mfg. Co. to the American Surety Co. was made. The property is now in the full possession of the latter company and by them will be passed over to the New York Motor Vehicle Company.

Wholesome Advice from Wisconsin.

Regardless of the justifiable tooting of its own horn which is included in the advice, one of the Wisconsin Wheel Works' recent circulars expresses some things so tritely and crisply that they will bear reading and repeating anywhere. Hear them:

"The atmosphere is getting clearer. The maker who sold for less than cost to produce is dead and buried. Many factories have been discontinued or turned to other lines. Thousands of dealers, from the jobber to the repair man, have quit. The ruinously low prices made possible by overproduction or the foolish scramble for business can harm no more. The withdrawal from the trade of many makes it certain that a profit awaits those now in the business who are able and willing to take advantage of the situation.

"To take this advantage, secure a line of bicycles, attractive in design and finish, in which the best material only is used. Such a one is the Mitchell line. Secure a concern as your manufacturer, having such a bicycle; able and willing to take care of you this year and the years to come; who asks but a fair profit; in whom you can rely; who does business on business principles. You can find a firm of this character in the Wisconsin Wheel Works, Racine Junction, Wis.

"We think that references should be given as well as asked for. We are willing that you should investigate us financially and otherwise; in fact, are pleased if you will do so. Consult Dun, Bradstreet, write to any bank, express company or reputable business house in this city, where the members of this company have lived all their lives and have built one of the largest enterprises in the world in another line."

Why Fleming Feels Satisfied.

Since their removal from Brooklyn to New York City the Fleming Mfg. Co. say they have more than doubled their facilities for turning out Fleming motors; but, despite the fact, they figure on running nights. The demand for their motors has been much greater than anticipated, and they are having trouble keeping pace with it. They say there will be a much bigger call for motorcycles next season than most people imagine; their experience and position give weight to the prophecy.

Deny the Report.

The Waltham Mfg. Co. of Waltham, Mass., write that there is no truth in the report that they are negotiating with the A. F. Stowe Mfg. Co. of Worcester, Mass., for the use of a hub the latter concern has brought out.

Nyack Comes to Naught.

The American Bicycle Co.'s Nyack, N. Y., plant is, according to a Nyack paper, to be closed down in a month's time. A small force is now at work finishing up the stock on hand.

LONG CRANK LOGIC

Some Common Sense Deductions — Why Long Cranks Benefit Elderly Riders.

It appears to me that both parties in the long crank-high gear controversy are attempting to prove too much, says that eminent English authority, Dr. E. B. Turner. I do not think that it is possible for any one who has really worked out the question or considered it deeply to believe that a crank of 8 or 9 inches and a proportionate gear is bound to suit everybody, or that, on the other hand, no one can do any good unless he rides with a crank of from 6 to 7 inches and gear 60 to 74 inches.

I think every one will admit that, all things (i. e., weight, ease of running and rigidity of the machine) being the same, exactly the same expenditure of force is required to drive a bicycle a distance of one mile in, say, four minutes, whether the crank and gear be 6 inches and 60 inches or 9 inches and 90 inches.

This being admitted, the question then arises, Are some men better suited by a slower action and longer lever, as in the 9 inches and 90-inch gear, and others by the rapidly repeated actions necessitated by the shorter crank and lower gear? All exercises are physiologically divided into speed and power exercises.

In most speed exercises the muscular movements are quickly and rapidly repeated, and the power used for each particular action is comparatively small. In power exercises the muscular movements are slower and more deliberate, but the power put into each particular motion is comparatively greater. Some men are so built that they are better suited by the former, others by the latter form of exercise. If a man have a large muscular development of his lower limbs it will be found that the levers on which those muscles act are short, and that he has a small projection backward of his heel bone, and that the insertion of the big muscle in front of the thigh is short, and is attached high up to the bone of the leg. This conformation allows him to move his limbs rapidly, and men of this build are generally found to be good short distance runners. On the other hand, some athletes have a slighter muscular development, and their levers are consequently long, the result being that they move their limbs in a slower and more deliberate fashion, although the power which they can put into any particular motion is just as great as the man with a larger muscular development can exercise, because the smaller muscle acts to greater advantage through the long lever. Such men have been found, as a rule, to excel in distance running. It appears to me, therefore, that the men with the large muscular development and the short levers will probably do better with a short crank and a low gear, while those with the smaller

muscular development and the longer levers will find the more deliberate movements necessitated by the long crank and high gear suit them better. The actual height of the rider has been much insisted upon by many correspondents, and the length, or want of length, of the respective bones of the thigh and leg pointed out. It appears to me that a great deal too much stress has been laid upon these physical conformations. I myself have known of many sprinters with large muscles and short levers, who were 6 feet and upward in height. On the other hand, some of the best distance runners have been very short.

J. White, of Gateshead, some of whose professional long distance records made in 1865 still stand, is only 5 feet 2 inches in height, but has exceedingly long levers. W. G. George, probably the best distance runner of this or any other age, stands 6 feet, with proportionately long levers. I think,

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therefore, in fitting a crank and gear to a rider that more attention should be paid to his conformation—whether he is built as a sprinter or a distance runner rather than simply to his actual height.

Many riders have claimed that they can ride hills better when using a long crank and high gear. I think, however, that this can be easily accounted for. If a man rides a machine with a 6-inch crank and a 60-inch gear he will be carried forward 15 feet at each revolution of his pedals, and his feet will travel through a circle whose circumference is approximately 36 inches.

If he ride a machine with a 9-inch crank and 90-inch gear, at each revolution of the pedals he will be carried forward 22 feet 6 inches, and his feet will describe a circle whose circumference is approximately 54 inches. Therefore, in ascending a hill of, say, 1,500 feet, the man with a 6-inch crank will require 100 revolutions of his pedals to arrive at the top, and the man with the

9-inch crank only 66½ revolutions or, in other words, the man with the short crank will have 100 dead centres to get over and the man with the 9-inch crank only 66½ dead centres.

Now, there is no doubt that the most ineffective portion of the stroke is that while the rider is overcoming the dead centre. To old riders who have been well tutored, and are skilled in anking, this does not make so much difference as it does to the great majority of men who have taken to the bicycle in the last few years. Many of them hardly ankle at all, and trust entirely to toe clips and Providence to surmount their dead centres. It stands to reason, therefore, that many of these, provided they are of the build which is presumably better suited by a long crank, find the ascent of a hill much easier when they have about one-third fewer dead centres to negotiate. In considering this question, however, there is another factor which must be taken into account, and that is the fact that a much more forcible downward and forward thrust can be given when the knee has been previously bent to an angle somewhat less than a right angle. This has been proved experimentally in the anthropometrical laboratory, and any one can satisfy himself on the point by the aid of a pulley and a few weights. This fact was known practically to those of us who raced on dirt tracks, with solid whiplash tires, in the days when bicycles took a great deal more pushing than they require now, and when first the "safety" was introduced the position adopted by nearly all prominent path and road racing men was the "backward," with a very short reach, the result of which was that the knee was more bent than it would have been had they sat higher and more forward. When using a long crank—8 or 9 inches—these conditions are to a great extent reproduced, and the knee is bent to an angle of 90 degrees, and sometimes even less.

I have made a good many experiments to see whether, acting on a long crank, with this advantage in power, I could with equal ease drive a gear of the ratio of 1 to 10-2-3 as I could one of a ratio of 1 to 10. I found that with the same speed of foot motion in pedalling I could drive a 9-inch and 96-inch gear with the same ease that I could a 6-inch and 60-inch. By this I mean that I found that I could pedal at the same proportionate speed with the 9-inch crank and the 96-inch gear that I could with the 6-inch crank and the 60-inch gear, the result, of course, being an improvement in speed to the amount that the 96-inch was in higher ratio than the 60-inch. I calculated this in the following way:

I knew that my feet, following the revolutions of the pedals, would travel as far in 100 revolutions with a 6-inch crank as they would in 66½ revolutions with a 9-inch crank, and I extended the distances up to about five or six miles, which I then rode one day on one machine, the other day on another, going as hard as I could, and I

found on every occasion that I was faster with a long crank and high gear, and faster very nearly to the amount in which the ratio of gear to crank on the 9-inch machine exceeded that on the 6-inch machine. It seems to me, therefore, that to those who are suited by the longer crank an improvement of speed may be expected owing to the proportionately higher gear that they are able to push with the same amount of exertion because of the more advantageous manner in which they are able to utilize the strength of their leg muscles through the increased flexion in the knee joint.

I think it will be found in the future, when everything has been worked out and settled on this subject, that the advantage of the long crank and high gear will be confined to those whom it physically suits, and that they will be able to do comparatively much better with a combination of 8-inch and 84-inch or 9-inch and 96-inch than with one of 6-inch and 60-inch or 6½-inch and 65-inch; but, on the other hand, I am quite certain that there are many riders who will do infinitely better on the lower gear and shorter crank, and that in all probability much of the exaggerated praise and blame which we have read on either side may be due to the fact that there has been an attempt to put "a square peg in a round hole."

With regard to my own personal experience, I have now had nearly eighteen years' steady cycling, and I believe that I am fairly capable of expressing an unbiassed opinion. I started to ride the long crank and high gear with a very strong prejudice against it and a lively remembrance of the "Demon" cycles of ten or twelve years ago, but I found that in my case I could cover a distance of thirty miles over a give and take road with less expenditure of force on an 8-inch and 84-inch machine than I could on a 6¼-inch and 62½-inch, although the low geared machine was several pounds the lighter.

When I used to race on foot I was always more of a stayer than a sprinter, and was considerably better at a mile and upward than I was at one hundred yards, and I have the long levers which, in dozens of cases, I have found to be the build of the

stayer. I found I could ride hills quicker and more easily with a long crank, but I did not find it suited me so well when riding against a strong wind. I was certainly faster on it, and I was faster with a 9-inch and 96-inch machine than I was on an 8-inch and 84-inch. This year I have been riding in the Isle of Wight over the same roads and up and down the same hills that I did last year. I found, although at the time I was in about the same condition, that I could not climb many hills with the 6¼-inch and 62½-inch machine that I was able to surmount fairly easily last year on a 9-inch and 96-inch machine. I have, therefore, come to the conclusion that I am probably of the build which is suited by the long and high combination, and my next machine will have a 9-inch crank and 96-inch gear.

I think it will be found that many middle aged novices will do better on the high combination than on the low, because after their first youth they will find it easier to "ankle slowly" than to ankle at the pace which is necessary to get the best results from a low gear. "Old men" can stay, but cannot sprint.

I do not think it is the slightest use for any one to change from a short crank and low gear to a long crank and high gear, ride it for a few times, and then give an opinion either for or against it. Muscles must be thoroughly accustomed to the change of stroke before the rider's opinion is worth anything.

Must be Enforced.

Senator Sewall, of New Jersey, has made an unsuccessful effort to have the Treasury Department abate the rigor of its order forbidding the carriage of gasoline and other inflammable materials on passenger steamers. The enforcement of the rule is causing much inconvenience to farmers in New Jersey, who have been in the habit of hauling hay and other articles included in the ban across the ferries.

Post yourself on Motocycles. Study up on the cycle of the future. "Motocycles and How to Manage Them" will help you amazingly. The illustrations show the "insides" of the motor and the text explains. For sale by The Goodman Co., New York. Price 75 cents.

Singer Takes up Motocycles.

It begins to appear that the English trade is awakening to the advantages and probabilities of the motor bicycle. While here in America the tide has set strongly in the direction of that type of motor driven cycle, the Britons have remained devoted to the three and four wheelers.

The Singer Cycle Co., one of the oldest cycle-making companies in the world, and the last of the British houses to evacuate the American market, is the first important maker to take up the motor bicycle; they are using the Compact motor, which was illustrated in the *Bicycling World* when it appeared, and which is here reproduced; the mechanism, as will be noted, is all contained in the rear wheel.

The first Singer bicycle of the sort was recently given a trial in Coventry, and the motor bore out the previous good reports of it. Of the machine Henry Sturmeys says:

"The bicycle is perfectly made and finished, and is unquestionably the handsomest motor bicycle that we have ever seen. All who tried the machine were struck with its extreme ease of management. It is one of those machines onto which any bicyclist can get at once, and after being shown the use of the one lever which controls it he can ride off straight away, and during the trial at Coventry several ran about on the machine who had not previously attempted motoring in any form."

The Singer people have also applied the Compact motor to tricycles. The front wheel is the driver, the motor being contained in it just as in the bicycle it is in the rear wheel. Save for the front wheel, the rest of the machine is but a strengthened form of man-propelled tricycle. The pedals drive both back wheels through a balance geared axle in the usual way. The combination is a light one, as the extra weight is all, or nearly all, on the front axle. The tricycle ran nicely, and was under the same easy control for which the two-wheeler is remarkable.

The Howard Supply Company, Trenton, N. J., has closed its bicycle department.

YOU CAN'T TELL THE AGE OF A BICYCLE

by the teeth of its sprocket but you can tell its quality by the chain that runs over them.

If it's a Duckworth



you may be sure that the makers of the bicycle are not building on the Cheap John plan. If the bicycles you handle are not fitted with Duckworths, specify that chain when you order. If it is refused you, you will have a certain cue to the quality of the wheel.

In the Duckworth factory, it is not how cheap, nor how many, but how good. Write for catalogue and prices.

DUCKWORTH CHAIN & MANUFACTURING CO., Springfield, Mass.

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ACQUIRING THE KNOW-HOW

The Manufacture of Sparking Plugs Supplies a Typical Instance.

In recapitulating the ingredients which go to make up an article it is never safe to leave out the "know how." Not infrequently does it turn out that this is, after all, the most important part.

In a conversation a short time ago with the mechanical head of a large manufacturing concern the value of the "know how" was strikingly brought out. It appeared that, in view of the inconvenience entailed by reason of having to import a large proportion of the sparking plugs used on motors, this concern decided to make its own plugs. The result is best told in the speaker's own words:

"A sparking plug seemed to be a very simple thing," he said, "even to us, who had some experience with them as far as using them went.

"So we decided to make a sparking plug of our own, and thus at one sweep get rid of all the trouble we had been having in the matter of deliveries, defective plugs, etc. The idea was such a good one that we felt chagrined that we had not thought of it sooner.

"I wrote around to several concerns for prices on the various kinds of material that we needed. Getting these, we ordered a fair quantity of them—enough to make up about a thousand plugs.

"For the porcelain we went to a house that was in the front rank in this line and ordered their best product. The asbestos we ordered from the Johns Company, and, as before, we laid stress on the fact that nothing was too good for us. So it was with the other materials we needed. Nothing was further from our thoughts than to save money on their cost.

"When everything was in hand we went to work, taking the best plug we had been able to buy as a sample. We did not try to make any great improvement in it or to change its construction. Our idea was simply to make a plug that would be as good, and possibly a little better—due to better workmanship—than our model.

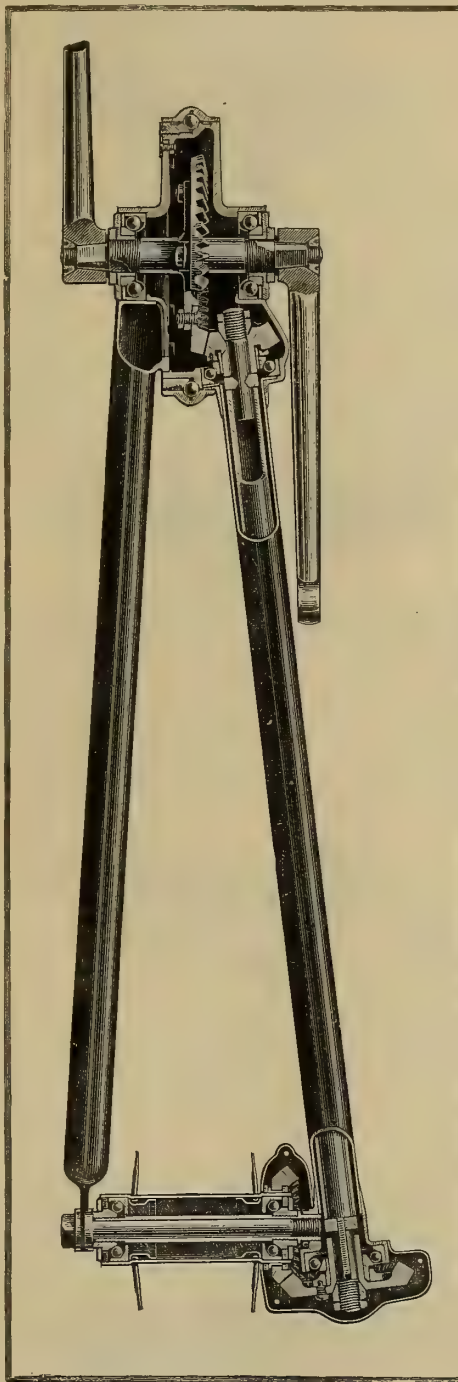
"Well, we succeeded, and now have a plug superior to anything I have seen elsewhere. But we did not do this with the lot I am speaking of or with the materials purchased. In fact, we have a thousand plugs, lacking just a few, on hand that are not worth the room it takes to store them. We can't use them, yet hate to throw them away.

"These plugs are apparently exactly like our later ones. Yet there is all the difference in the world between them. The one kind works all right, while the other is all wrong. With the latter the porcelain turned out to be porous, and the asbestos was not the kind we should have used. Consequently, they failed to work. We might put a new plug out and it would give no trouble the first time or two that it was used; the next time, however, it would go wrong, and, as there was no certainty about it, the best thing to do was to throw it away.

"As I have said, we know how to make sparking plugs now—plugs that are better than anything we can buy. But we learned the 'know how' by experience.

Pierce's Pan-American.

As the *Bicycling World* stated last week, the George N. Pierce Co.'s cushion frame chainless for 1901 will be styled the Pan-American Special, in honor of the Exposition to be held in Buffalo in May next. As was also stated, the new model will be also equipped with a hub coaster-brake and will



retain the centre drive previously employed, the construction of which is made plain by the accompanying illustration.

The Special will be made with 22, 24 and 26 inch frames for men and 22 and 24 inch frames for women, and, in the words of the Pierce people, the equipment is the best the market affords. That genuine Leland & Faulconer bevel gears will be employed goes without saying; the Pierce Co. has never used any other.

THE FLEECING OF INVENTORS

English Frauds who Preyed on Americans Brought to Book and Exposed.

Frequent warnings have been sounded regarding the unscrupulous practices of foreign attorneys, who prey on trustful inventors to an extent little dreamed of.

It now appears from the proceedings in a case in the English Bankruptcy Court that agencies exist which make a regular practice of fleecing unfortunates who fall into their clutches. In the instance referred to the bankrupt, Percy R. J. Willis, testified that he was associated with another person in carrying on what they called the International Patentees' Agency.

He and his partner also used the name of Donald Cameron in carrying on the business. The names of inventors in the United States having been ascertained, he sent out to them a number of circulars containing invitations to remit money for the purpose of having provisional patent rights granted to them in England. In response to these invitations he received a large number of remittances with instructions to protect the inventions specified. In 553 instances the remittances were not so used.

It appeared that the bankrupt's firm had absorbed in its business more than \$10,000 received from inventors in the United States and not applied to the purposes for which the money was sent. Willis could not file any statement showing what had been done with these receipts.

The surprising feature of the business is the ease with which the promoters obtained money from their foreign customers. The bankrupt freely admitted that in the case of one of his corporate agencies he appeared in the double capacity of Richard Rainsford, the manager of the company, and Percy Willis, its consulting engineer.

Tests which Mean Something.

It is too frequently the case that valves are sent out fitted to tires without having been properly tested. In this condition they frequently go into the hands of the rider and cause no end of trouble. One concern ensures that its valves are all right by subjecting them to an exhaustive test in water, under an air pressure of 80 pounds to the square inch. Should the least possible leakage be perceptible the valve is placed on one side to be carefully examined and rectified. On no account is a valve allowed to be fitted without satisfactorily undergoing this test.

When England's all-powerful "Dunlop monopoly" adds a single tube tire to its line, and mounts it on a wood rim, it suggests tremendous pressure from some direction. Perhaps there will now be less derision of that type of tire on the other side, although our smile is certain to be followed by the familiar, "It originated here, anyway," which always floats over the water on occasions of the sort.

Sees a Fortune in it.

With a courage that deserves success even if it does not attain it, a Waterville, Me., man has purchased the patent rights for a foot-applied bicycle bell, and is preparing to organize a company to market it.

The bell is designed to be fastened to the diagonal frame tube and operated by a stud attached to the sprocket wheel. The detailed working of the patent is as follows: "A bicycle bell adapted to be thrown into and out of operation by the foot of the rider, said bell comprising a clamp, a crank, a hammer pivoted to the clamp, and having a crank in the path of the sprocket spokes; a lever pivoted to the bell shank and having an enlargement at one end and an arm projecting into the path of the hammer lever, an enlargement adapted to be raised and depressed and throw the bell into and out of operation substantially as described."

Having seen the great demand that the invention would have, S. H. Locke, of Waterville, Me., has purchased the invention at the cost of \$2,500, and intends to organize through a firm of New York bankers a stock company for the promoting of the invention. The aforesaid bankers have agreed to finance the corporation.

The new owner says that the purchase of the patent was not considered until after consultation with some of the foremost inventors of the country, all of whom agree that the invention is a good one and sure to be greatly appreciated by bicycle riders of the country generally.

How to Appreciate the Cycle.

Has it ever struck you on a night ride miles away from home what a wonderful thing the cycle really is? asks an ardent rider.

The time is most propitious for contemplating the theme. There you are, bowling along noiselessly at perhaps fifteen miles an hour, with the employment of not a bit of auxiliary power. For hours and hours you can maintain a speed which, without the aid of the cycle, would not be possible to the best runner. You are independent of all engine troubles. A machine, complete and self-contained in its 30 pounds or so, carries your weight. You can have brakes relatively more powerful than those employed on any other machine. A gas lamp throws a searchlight far ahead. If the roads are muddy or dusty the non-slipping tires help to insure safety; on steep hills the free wheel gives you the full advantage of gravity.

You know, or ought to know, all about the working of the machine, and have tools to remedy any defect likely to arise. Every emergency has been provided for. In truth, the modern cycle is one of the mechanical marvels of the age; a magic transformer of power into speed, giving man the fleetness of the deer and the endurance of the camel—and also its hump.

Plain Speech About Saddles.

If you are looking for cheap saddles, you will have no occasion to call on the Kirkpatrick Saddle Co., of Springfield, Ohio; they don't make them. Their 1901 catalogue, which is already being circulated, makes this plain. Hear them: "We shall cater only for those customers who want the very best."

The Kirkpatrick catalogue is not very



large nor very bulky, but it is full of plain and direct speech. It offers the Kirkpatrick hammock saddle as the "only rational and perfect hygienic saddle built." As the illustration makes plain, there are springs at both ends. The jar from either wheel is thus fully compensated, and no vibration is felt by the rider, no jar whatever being communicated to the seat proper, it is

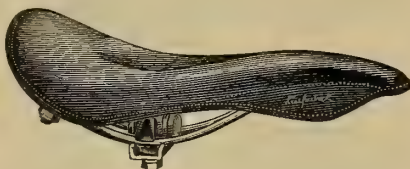


claimed. The springs at the front end give protection from jars where most needed, in which respect this saddle differs from all others, say the Kirkpatrick people, and then they slyly add: "Other manufacturers have candidly confessed this saddle to be finer and better than any made, and a few show their honesty by riding one of them."

This saddle was, and is, built with the



intention (1) that the rider sit fairly erect; (2) that the saddle was intended to be sat upon; (3) that the rider was not to carry his weight upon his legs or arms, but on the saddle. The heavier you sit in a Kirkpatrick Hammock, they say, the more comfortable it rides. It is claimed to be "pre-eminently the saddle for wheels fitted with coaster-brakes."



Next to their hammock type the Kirkpatrick company assert that "no saddle built or sold" is the equal of their B 5, here shown; they defy the world to show anything like it in the matter of strength and design; it is a saddle for racing and long distance riding.

The other saddles completing the Kirkpatrick line are two hard top models, one with and the other without springs.

Two Much Needed Improvements.

Two devices brought out by an English firm merit more than passing attention. The first is a tire valve which combines in an ingenious manner the advantage of an automatic back pressure valve and a mechanically locked valve abutting against a rubber washer. The act of screwing on the pump releases the mechanical lock of the valve, but leaves it working as a back pressure valve with the metallic head of the valve pressing against the rubber seating; consequently inflation is perfectly easy, as one only has to pump against the air in the tire, and there is no waste of energy in getting by the valve. When the pump is removed it tightens up the valve to the seating.

The other device is a new pump nozzle, which provides a washer which cannot in any way interfere with the freedom of the nozzle orifice, as the washer is sunk around a short length of tube which projects into the hollow stem of the valve when the pump is screwed on; consequently an absolutely air-tight joint is made, and at the same time the well-known troubles of stoppage of the air passage by the compressing of the washer over the opening are absolutely obviated.

Spring Frame That Suggests Things.

The Birmingham (England) Small Arms Co. has "plumped" for cushion or spring frames and are making ready to supply them to the trade at large. The concern is a large and important one in the parts trade, and their action is of particular interest and suggestiveness to the American parts makers, because it is B. S. A. fittings that are among the Americans' most formidable competitors in the export markets.

The B. S. A. cushion frame is thus unsatisfactorily described: The vibration is absorbed by three springs, which are placed inside the tubes of the frame. Two of these are in the back stays immediately under the saddle, and one large one in the top tube of the frame. Telescopic tubes are fitted at these three points, and so the springs are allowed to absorb the vibration from the road surface. Four knuckle joints give the necessary vertical play to the frame, two near the bracket and one at either end of the top tube.

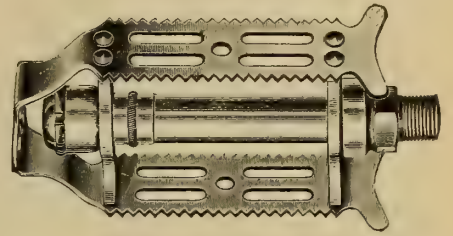
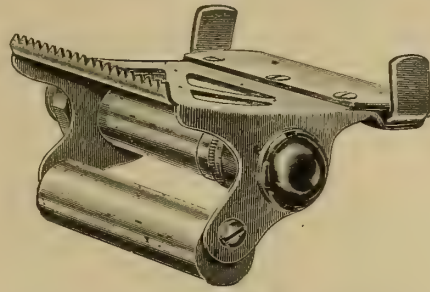
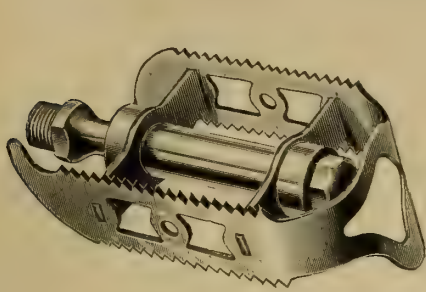
De Dion's New Motor.

Water cooled motors of lower powers, such as is applicable to motorcycles, have been rare and little used. Now, however, the De Dion-Bouton Co., of Paris, have brought out a 2¾ h. p. water cooled engine, adapted to motorcycles, which it is stated "will add to their efficiency."

In the fire which almost swept the little town of Laurel, Neb., out of existence, the only bicycle dealer in the place lost his all; Chris Hansen was the unfortunate's name.

... WE REJECTED ...

and returned to the makers a considerable quantity of material that was not good enough to go into CURTIS PEDALS. It is being used by others.



Curtis Pedals

are as good inside and under the nickel plating as they are on the outside.

That's why they have been a standard of quality for nearly ten years.

Can you be interested in pedals of the sort?

REED & CURTIS MACHINE SCREW CO., WORCESTER, MASS.

"It Only Takes a Third of that Carbide Stuff that the Big Ones Do."

Uncle Josh discovers the first good point in the

COLUMBIA AUTOMATIC GAS LAMP.

Will fit BICYCLES, BUGGIES or MOTOR VEHICLES.

We know it embodies all best features of all lamps and no bad features of any.

It lights at once.

Turns down or out at once.

Requires one-third the carbide necessary in a large lamp.

Water feed takes care of itself.

As good a headlight as the large lamps.

Nothing to get out of order, so not like the large lamps.

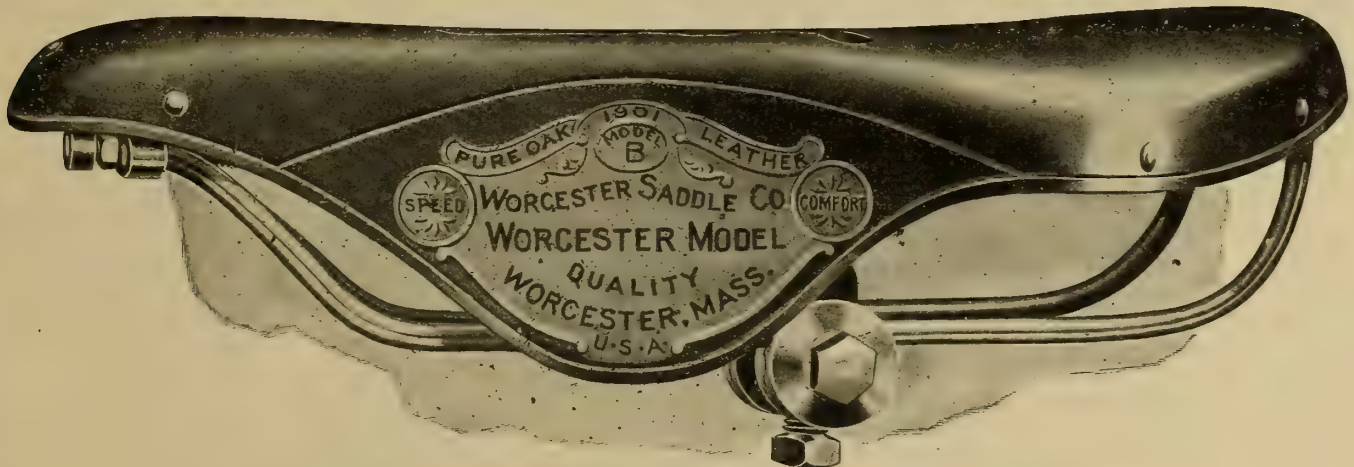
Supplied with special dash bracket.

Dealers demand it, so order cuts for your catalogue.

HINE-WATT MFG. CO., 14-16 N. Canal St., Chicago.



A PERSONS PRODUCT.



UNEQUALLED ANYWHERE AT ANY PRICE.

PERSONS MANUFACTURING COMPANY, WORCESTER, MASS.

The Retail Record.**CHANGES.**

Madison, N. J.—Wilson & Dervan, succeed D. S. Ely.

Ipswich, Mass.—E. E. Currier, is having an addition built.

Haverhill, Mass.—George Durgin, store is being renovated.

Rutland, Vt.—Howard & Ingalls, removed to 83 Wales street.

Flint Village, Mass.—Frank Marsh, succeeds Howard & Marsh.

Danvers, Mass.—F. A. Butler, will add phonographs and supplies as side lines.

Trenton, N. J.—John Howard, North Broad street, will remove to Hanover street.

Buffalo, N. Y.—Lake City Cycle Co., partnership dissolved, A. R. Wheelock retiring

T. R. Palmer, general superintendent of the Pennsylvania Rubber Co., Erie, Pa., has received information that a patent has been granted him for an invention on a method



Fig. 1.

of fastening or closing inner tube ends; it will be used and exploited by his company, who believe that it will prove a decided improvement on inner tube ends, and one that carries with it an increase of trade.

and Joshua Conn continuing business under the old name.

Gloucester, Mass.—Perkins & Corliss, dissolved; business will be continued by Fred A. Corliss at the old stand, while John F. Perkins will open a similar store elsewhere.

FIRES.

Martinsville, Ill.—H. J. Goff, loss \$200; insured for \$150.

Santa Paula, Cal.—J. Wrangle, Main street, loss \$800; no insurance.

Smith's Falls, Ont.—C. Williscraft, Beckwith and William streets.

BURGLARY.

Philadelphia, Pa.—A. W. Fritz, 752 South Broad street, broken into and four bicycles stolen.

Recent Incorporation.

Montreal, Can.—Wright-Taper Roller Bearing Company, with \$300,000 capital, to acquire the patents of W. H. Wright for improvement in bearings applicable to bicycles and other vehicles. Incorporators, William Hamilton Wright, of Buffalo; A. C. Matthews, William B. Powell, R. C. Smith, Charles Ledoux and W. Laurie, all of Montreal.

Post yourself on Motocycles. Study up on the cycle of the future. "Motocycles and How to Manage Them" will help you amazingly. The illustrations show the "insides" of the motor and the text explains. For sale by The Goodman Co., New York. Price 75 cents.

Heretofore, say the Pennsylvania people, any known manner of closing the ends left the tube weaker at the ends than at any other point by reason of the second vulcanization or the single lap leaving sharp, un-

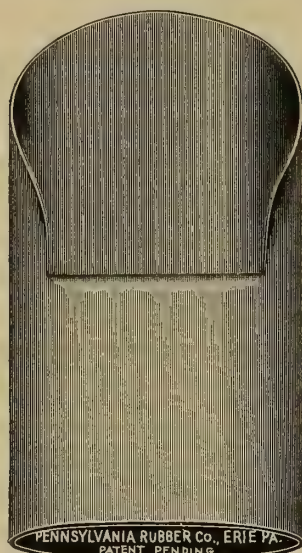


Fig. 2.

protected corners, but, as the accompanying illustrations show, Mr. Palmer's method renders the tube stronger at the ends than at any other point.

Fig. 1 shows the peculiar shape in which

Offered as a Side Line.

In addition to their bicycle lamps, the Matthews & Willard Manufacturing Company, Waterbury, Conn., are now making a line of house and store lamps burning carbide; they are being offered to the bicycle dealer in search of sidelines. The new lamps are handsome creations, and are well worth an inquiry; they are illustrated in M. & W.'s 1901 catalogue, which is now in circulation and which is of unusual form; at first glance it suggests a diploma or a legal summons.

Petition in bankruptcy has been filed by C. Cousins, Yorkville, S. C.

Venables & Son, Redondo, Cal., were damaged by fire last week.

The Week's Patents.

660,598. Bicycle Tender. Charles H. Stonebridge, New York, N. Y. Filed Jan. 29, 1900. Serial No. 3,106. (No model.)

660,615. Luggage Carrier for Bicycles, etc. Martin Bauer, Cleveland, Ohio. Filed May 28, 1900. Serial No. 18,205. (No model.)

660,728. Metallic Vehicle Wheel. Thomas Midgley, Columbus, Ohio. Filed July 7, 1900. Serial No. 22,845. (No model.)

660,729. Metallic Vehicle Wheel. Thomas Midgley, Columbus, Ohio. Filed July 9, 1900. Serial No. 22,978. (No model.)

660,875. Bicycle Guard. John Wambach and George Wambach, Philadelphia, Pa. Filed July 28, 1900. Serial No. 25,100. (No model.)

660,942. Vehicle Tire. George L. Allen,

the end is cut in preparing it for the fold. Fig. 2 represents the shorter front end folded inside of and cemented firmly to the rear wall of the tube. The two outer edges or folds are then cemented together.

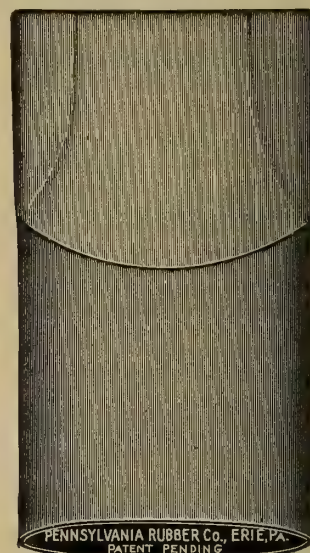


Fig. 3.

Fig. 3 represents the longer or rear lap folded over in front and cemented down, thus making the ends of double thickness, and consequently of double strength just where the most strength is required.

Bradford, Pa. Filed Mar. 2, 1900. Serial No. 7,113. (No model.)

660,971. Bicycle. James E. Ruby, Cosby, Mo. Filed May 21, 1900. Serial No. 17,381. (No model.)

660,976. Tire for Bicycles. Nils Swanson, Olean, N. Y. Filed Apr. 29, 1899. Serial No. 715,031. (No model.)

661,022. Bicycle Brake. Harvey E. Ringle, Redlands, Cal. Filed Mar. 12, 1900. Serial No. 8,424. (No model.)

DESIGN PATENTS.

No. 33,383—Bicycle hub. George H. Cheney, Rochester, N. Y. Filed, September 14, 1900. Serial No. 30,075. Term of patent, seven years.

No. 33,384—Gun carrying attachment for bicycles. Oliver Thorn, London, England. Filed August 11, 1900. Serial No. 26,656. Term of patent, seven years.

Converts Iron Into Steel.

Another method for converting iron into steel has made its appearance, and the inventor, Erhard Hardmeyer, of Kokomo, Ind., has taken out a patent on a composition which he claims effects this purpose. It is described as follows:

The composition consists of the following ingredients, combined in proportions stated: Albumen, 100 pounds; Epsom salts (magnesium sulphate, $MgSO_4$), 15 pounds. The ingredients have to be well dried, pulverized and mixed. The articles or bars of iron to be converted into steel are put into cast-iron receptacles or retorts of clay in intervals of from $\frac{1}{2}$ to $1\frac{1}{2}$ inches, and the pulverized compound is put between, well packed, and the receptacle is then hermetically closed and subjected to a bright red or white heat in the furnace from eight to twenty-four hours, according to the depth of surface to be carburized, and from twelve to forty-eight hours for complete carburization, according to the dimensions of the iron.

Unkindest Cut of All.

Many hard things have been said about the trade, some of them, it must be admitted, possessing a portion of truth. But they pale into insignificance when compared with the assertion made by a South Carolina paper, the Spartanburg Herald. This well informed journal asserts that "bicycle manufacturers," names and numbers not stated, engaged a "hard faced, hard muscled woman athlete" to ride on Long Island a certain number of thousands of miles in a certain number of hours in the hope of attracting attention to the gentle art of cycling.

Even this desperate effort to arrest the decline of cycling will prove to be unsuccessful, the Herald adds.

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

Simpson's New Idea.

W. S. Simpson, who owes his ephemeral fame to the fact that he was the inventor and exploiter of the Simpson chain, which created such a furor in certain circles a few years ago, has been heard from again. He is bringing out a new firearm, which, from newspaper accounts, promises to revolutionize infantry shooting. If report is correct, the new rifle combines the weight of a Lee-Metford with the capability of a Maxim!

To Acquire a Motorcycle Education.

"Motorcycles and How to Manage Them." The name explains the nature of the book. Price 75 cents. For sale by The Goodman Company. ***

Ring out the old; ring in the new;
Ring out the false; ring in the true.

We've done it.

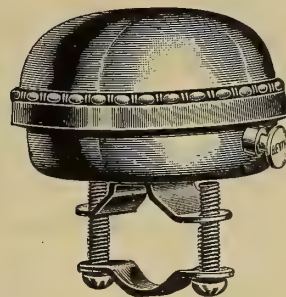
The old are out, the new
are in,

and they, like all

BEVIN BELLS,

are true.

Here are a few of them.



THERE ARE OTHERS.

ARE YOU READY FOR QUOTATIONS?

Bevin Bros. Mfg. Co.,

East Hampton, Conn.

Also Makers of Trouser-guards, Toe-clips, Lamp-brackets, etc.

THE CUSHION FRAME READ

What others can do YOU can do.

HYGIENIC WHEEL CO.,
220 Broadway, New York.

Detroit, Mich., Oct. 15th, 1900.

GENTLEMEN:—

I have sold at RETAIL HERE in DETROIT during the past season UPWARDS of THREE HUNDRED CUSHION FRAME BICYCLES. Never before in my fifteen years experience as a bicycle dealer have I handled goods that have appealed more quickly to public fancy nor have proven more permanently satisfactory than Cushion Frame bicycles. In my opinion the Cushion Frame is the greatest practical invention in the make-up of a bicycle since the advent of the pneumatic tire. IT IS DOING MORE TO POPULARIZE CYCLING than any other modern improvement. I FIRMLY BELIEVE that the STANDARD WHEEL OF THE FUTURE will be the CUSHION FRAME.

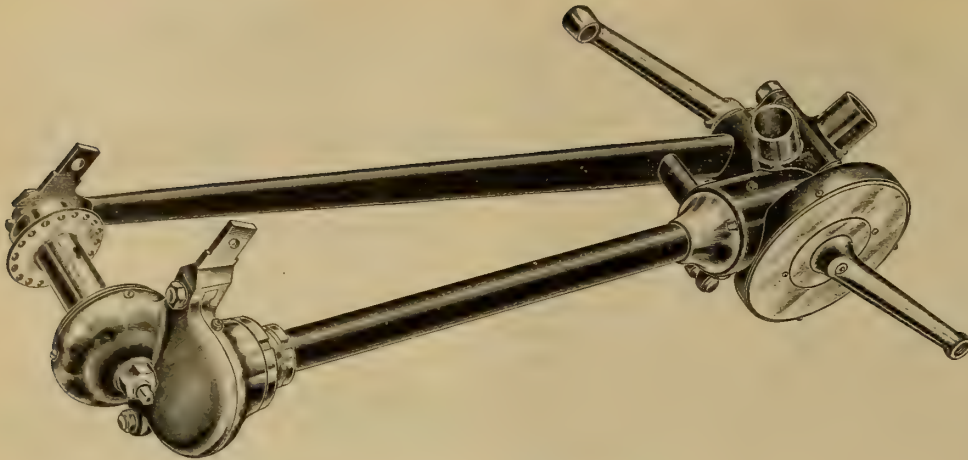
Very sincerely yours,

WM. E. METZGER.

Mr. Metzger has sold all the Cushion Frame bicycles above noted at prices ranging from \$50.00 to \$80.00. Don't you think there is money in handling Cushion Frame models?

Write your manufacturers about them.

NOTE:—Cushions are attached only to HIGH GRADE BICYCLES.



This is a Standard Set of Leland-Faulconer Bevel-Gear Fittings, Complete.

IMPERFECT FITTINGS have HANDICAPPED the "BEVEL-GEAR CHAINLESS BICYCLE." We have given you PERFECT GEARS for three years. NOW WE have SOLVED the PROBLEM: PERFECT GEARS mounted in PERFECT FITTINGS. SUCCESS is thus assured. MANUFACTURERS need go to NO EXPENSE to DESIGN or MAKE FITTINGS. We furnish them already to braze to the frame uprights, for either CUSHION or rigid frame "CHAINLESS BICYCLES." WHEN you build chainless bicycles with LELAND-FAULCONER BEVEL GEARS and FITTINGS you have the BEST CHAINLESS in the WORLD, and, as this means the BEST PROFITS, can you AFFORD NOT to PUSH the CHAINLESS? Correspondence solicited.

LELAND & FAULCONER MFG. CO., DETROIT, MICH.



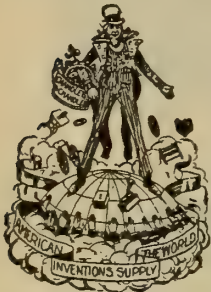
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The Melvin Automatic Coaster Brake.

Thoroughly reliable, having been tested for two seasons. Write for catalogue and prices.

F. M. SMITH & BRO., - St. Paul, Minn.

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Our fee returned if we fail. Particulars and our book "How to Secure a Patent" sent free. Patents secured through us are advertised for sale at our expense. Send sketch and description of your invention and we will tell you free whether or not it is patentable.

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Registered Attorneys,
906 F Street, Northwest,
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STOPS LARGE PUNCTURES.

This is the only fluid that can be legally used in pneumatic tires. Suits now pending

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ENAMELING, NICKEL-PLATING
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Carriage Tires
Our Specialty.

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HIGH GRADE

wheels must have the best equipments.

There is nothing that gives more value for the money than the use of the

MORSE TWIN ROLLER CHAIN



NOISELESS IN MUD, WATER OR DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless Rocker Joints. Insist on having the Morse Twin Roller. Fits regular sprockets.

Send for Catalogue and Trade Price to

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GASOLENE MOTORS

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AIR COOLED AND WATER JACKETED

ACCESSORIES AND PARTS

ALSO

Complete Sets of Castings and Working Drawings

LOWELL MODEL CO.

Box 292 LOWELL, MASS.

Represented by Charles E. Miller, 97 Reade St., N. Y., at Space 14, Madison Square Garden, Nov. 3 to 10.

Sheet Steel Bicycle Parts.

All Kinds of Metal
Stamping

THE CROSBY COMPANY, Buffalo, N. Y.

A Health Resort.

Excelsior Springs, Mo., on the Kansas City line of the Chicago, Milwaukee & St. Paul Railway, has become one of the leading all-the-year-around health and pleasure resorts in the United States. The use of its waters has benefited a great many sufferers.

The Chicago, Milwaukee & St. Paul Railway has just issued a finely illustrated booklet, describing the resort and telling of its advantages, which will be sent free on application to Geo. H. Heafford, General Passenger Agent, Chicago, with two-cent stamp inclosed for postage. ***

HAND AND FOOT PUMPS,

Oilers, Repair Tools,
Valves, Name-plates, etc.

Spelter Solder

Sheet Brass,
Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn
Depots: 210 Lake St., Chicago.
423 Broome St., New York.

Have you investigated the "FLEMING"

Hydro-Carbon Motor?

We build 1½ H. P. Motors, air-cooled; 2 H. P. Motors, air-cooled; 2¾ H. P. Motors, air-cooled; 4 H. P. Motors, water-cooled.

If You are Building Motorcycles or Automobiles write for prices and particulars of the "FLEMING" Motor to

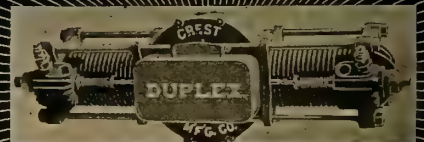
FLEMING MANUFACT'G CO., 93, 95, 97 Elizabeth St., New York City.

Or to our agents, E. A. Brecher & Co., 95 Reade St., New York; Geo. N. Greiss, 2128 N. Second St., Philadelphia, Pa.; W. P. Weaver, 516 State St., New Haven, Conn.

You can see us during the Automobile Show in Madison Square Garden, New York city, in Space No. 7.

CREST INDESTRUCTIBLE SPARKING PLUGS,
Guaranteed. Price \$2.00.

CREST MANUFACTURING CO.
CAMBRIDGEPORT, MASS.



CREST GASOLINE MOTORS
FOR
TRICYCLES AND
AUTOMOBILES.

THREE, FOUR AND FIVE HORSE-POWER MOTORS.
Immediate Delivery.

Wheel Won't Drop Out.

By far the most convenient way to provide for the easy attachment and detachment of the front wheel is to slot the front fork ends. For some reason, however, this method does not meet with general favor, and many machines are still made with the old-fashioned holes to take the front axle. This entails an infinity of trouble, barked knuckles, and sometimes bent forksides; besides much bad language. But still it goes on.

A plea urged against slotted fork ends is that the wheel might drop out if the nuts were loose. This possibility is effectually prevented by an arrangement brought out by an English firm, which may be thus briefly described:

The washer has a couple of ears on it which engage in the depressions in the edges of the fork ends, so that even if the axle nuts are loose and the bicycle be lifted from the ground the front wheel will not fall out, as the washer keeps the pin in position, and can only be removed by completely undoing the nuts and setting the washer back by introducing the point of a screwdriver between it and the fork end. When this is done the front wheel can be dropped straight out of the machine without further trouble.



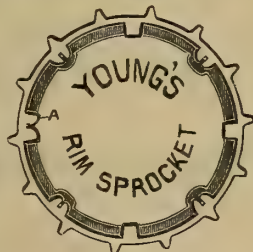
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JUNE 12th 1900

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you for 1901 on

NELSON'S ADJUSTABLE
CONES.

YOUNG'S RIM SPROCKET
and CRANK EXTENSIONS.

A. NELSON MFG. CO.,
67 and 69 So. Canal St.,
Chicago, Ill.



STANDARD SPOKE & NIPPLE CO.,

Torrington, Conn.

Spokes and Nipples

for Bicycles, Motorcycles and Automobiles.

Chicago Office,
40 Dearborn Street.

About Saddle Manufacture.

In addition to their regular catalogue, the Kirkpatrick Saddle Co., Springfield, Ohio, are circulating a little pamphlet, "Scientific Saddle Making," the title of which is self-explanatory. The little book is full of interesting reading.

Want Lovell Factory.

The South Portland (Me.) factory of the John P. Lovell Arms Company, which has been in the market for some time, may be purchased by a concern that is now said to be negotiating for it.

"PERFECT"



25c.

OILER.

Used by leading makers of high-grade bicycles. The only oiler that regulates supply of oil. CANNOT LEAK. We make cheaper oilers also, of unequalled quality.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.

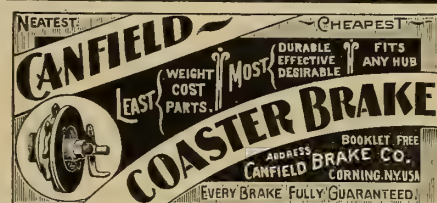
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Last Year.

Everyone Giving Satisfactory
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Desirable by Fitting it with
the MORROW.

ECLIPSE MFG. CO., ELMIRA, N. Y.
NEW YORK BRANCH:
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All American wheelmen who desire to keep themselves posted upon matters concerning the cycle in Europe, its trade, mechanics, and sport, should subscribe to

THE CYCLIST

AND BICYCLING AND TRICYCLING TRADES REVIEW.

The only recognized authority of English trade and manufacture. Sent post free to any part of America for one year \$3.25. American manufacturers having novelties in machines or sundries to introduce should advertise in

THE CYCLIST.

Terms on application to

ILIFFE SONS & STURMEY, Ltd.,
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Members of the American Trade visiting England are invited to call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street, Ludgate Circus, London, E. C.

THE NULITE

1750 CANDLE POWER

ARC ILLUMINATORS

Produce the finest artificial light in the world
SUPERIOR TO ELECTRICITY OR GAS
CHEAPER THAN KEROSENE OIL

A 20th Century Revolution in the Art of Lighting.

They darkness into daylight turn,
And air instead of money burn.

No Smoke. No Odor. No Noise. Absolutely Safe.
They are portable. Hang them anywhere.

WE ALSO MANUFACTURE

TABLE LAMPS PENDANTS WALL LAMPS
CHANDELIERS, STREET LAMPS, ETC.

The BEST and only successful

Incandescent Vapor Gas Lamps

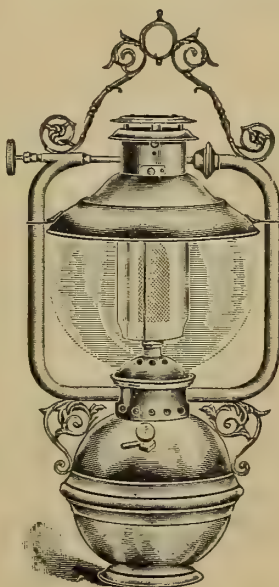
made. They sell at sight. Nothing like them.

A SNAP FOR BICYCLE DEALERS.

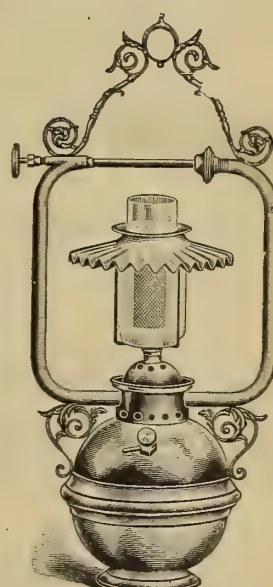
Agents wanted everywhere.

Write for catalogue and prices.

CHICAGO SOLAR LIGHT CO.,
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Outdoor.



Indoor.

FREDRICK ADJUSTABLE HANDLE BARS
— ARE —
MECHANICALLY CORRECT

FREDRICK MANUFACTURING CO.
150 Nassau St., New York City, U. S. A.



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Chicago and Milwaukee.

Frequent fast express trains at convenient hours.

All agents sell tickets via this popular route.

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TICKET OFFICES:

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461 Broadway, New York City.
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THE IRISH CYCLIST

Specimen copy and advertising rates on
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AUTOMOBILES
WHAT ARE THEY AND
WHAT WILL THEY DO ?
Is completely answered "without the use of technical language" and a reliable
directory of makers of motor-vehicles and their parts is given in a special number of
THE MOTOR AGE
THE AUTOMOBILE AUTHORITY OF AMERICA
Send 10 cents for Special Number or 1.00 for
Volume 1. 324 Dearborn Street, CHICAGO



Through Train and Car Service in
effect April 29, 1900.

TWO FAST TRAINS

	"Chicago" Special Via Lake Shore.	"North Shore" Special Via Mich. Cen.
Lv. Boston	10.45 A.M.	2.00 P.M.
Due Albany	4.10 P.M.	7.35 "
" Syracuse	7.55 "	11.40 "
" Rochester	9.40 "	1.30 "
" Buffalo	11.40 "	
" Toledo	5.55 A.M.	
" Detroit		8.15 "
" Chicago	11.50 "	4.00 P.M.

The Finest Pullman Cars will be run on these trains.
Tickets and accommodations in sleeping cars for sale at City
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A. S. HANSON, General Passenger Agent.

GOOD WORK GUARANTEED.

D. PATTINSON,
rear 48 Stanhope St., Boston.
(Opposite former location.)

EXPERT REPAIR WORK
OF ALL KINDS ON
BICYCLES AND AUTOMOBILES.
(Official L. A. W. Repair Shop.)

The Thorndike

Boylston St. and Park Square,

On the border of the most famous Public Garden in America. **BOSTON.**
G. A. DAMON. J. L. DAMON. J. L. DAMON, Jr.

SANGER ADJUSTABLE HANDLE BAR.

"THE ORIGINAL AND ONLY."

Patented October 10, 1899.

SANGER HANDLE BAR AND PLATING CO.,
Milwaukee, Wis.



Via Rockford, Freeport, Dubuque, Independence,
Waterloo, Webster City, Fort Dodge, Rockwell
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DOUBLE DAILY SERVICE TO OMAHA

Buffet-library-smoking cars, sleeping cars,
free reclining chair cars, dining cars.
Tickets of agents of I. C. R. R. and connecting
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**LOWEST RATES
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Pullman Parlor or Sleeping Cars on all
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For tickets and information apply at any
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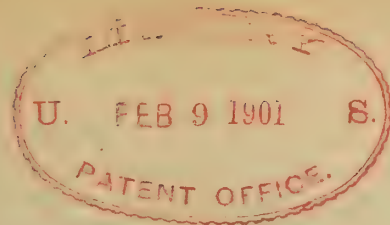
ASPHALT PAVEMENTS

THE STANDARD
PAVEMENT OF
AMERICA

THE BARBER ASPHALT PAVING CO.,

Endorsed by the L. A. W. Everywhere.

No. 11 Broadway, New York.



The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., November 15, 1900.

No. 7.

A. B. C. SERVES WARNING

Brights to Bear its Patent on Handlebars with Internal Expanders.

After a period of quiet, the American Bicycle Co. has again turned loose its legal battery on the rest of the trade.

This time it is the Copeland patent, No. 586,786, covering handlebars with internal expanders that is at issue.

Although the patent was not issued until July 20, 1897, the application was filed more than two years before, April 23, 1895, Copeland assigning the patent to the Pope Mfg. Co.

While the patent covers a "steering-head for velocipedes," the title is rather misleading. It claims "the combination with a handle-bar holder comprising a split ring to receive the handle-bar and an expansible shaft and a tube to which said holder is secured, of a bolt passing through the free end of said ring and into the shaft and a nut to engage the bolt adapted to be drawn into the shaft to expand the same."

The A. B. C.'s notice of infringement has been served on about 100 manufacturers. It appears over the signature of Vice-President Pope, as follows:

"We beg to call your attention to the fact that we are the owners of United States Letters Patent No. 586,786, issued July 20, 1897, to J. S. Copeland, for improvement in steering head for bicycles.

"The construction placed upon the market by you is a clear infringement of this patent.

"We presume that you are not aware of this, and we take this occasion to notify you. The patent has been carefully examined by patent counsel and pronounced valid, and we shall, therefore, expect manufacturers and dealers to respect our rights by discontinuing the use of this construction and by accounting to us for past infringement.

"Will you kindly give the matter your immediate attention, and advise us at your earliest convenience?"

Fowler Blames Leaky Skylight.

An alleged leaky skylight has caused a legal dispute between the Fowler Cycle Works and the firm of Fraser & Chalmers. Several months ago the Fowler Company's factory was situated in a building owned by Fraser & Chalmers. This building contained a large skylight. When it rained President Fowler says water leaked through the skylight and damaged his stock. Finally he moved out, refusing to pay a rent claim of \$290 brought by Fraser & Chalmers. Last week the latter firm secured a distress warrant for the rent in the Circuit Court.

Failure at Waterbury.

A petition in bankruptcy was filed in the United States District Court last week by R. G. Remillard and Prique Valois, who have been carrying on a bicycle business at No. 383 South Main street, Waterbury, under the title of the Brass City Cycle Works. The assets of the firm are \$732.15, and the liabilities are \$1,994.26. The individual liabilities of Remillard are \$2,546.26 and he has assets of \$50 which is claimed to be exempt. Valois's individual liabilities are \$1,994.26 and his assets are \$150, of which \$50 is claimed to be exempt.

What Olive will Market.

For 1901 the Olive Wheel Co.'s line will comprise the following: Roadsters, \$30; special roadsters, \$40; track racer (one inch tubing), \$50; cushion frame models, \$50. The make-up and equipment will include Shelby tubing, Thor hubs, Fairbanks rims, Excelsior spokes, Record pedals, Kelly handlebars and Sager saddles. The Olive people want it known, too, that their \$30 model is not an "assembled bicycle," but one, like its companions, fully manufactured in the Olive factory at Syracuse.

Crescent at an Increased Price.

It is now fairly public property that a Crescent chain geared bicycle at \$50 will be included in the American Bicycle Co.'s Crescent line for 1901. Last year a \$35 model was the highest priced Crescent, the chainless excepted. The 1901 wheel at \$50 will be in the nature of an increase of price, and prove an experiment that cannot well fail to interest the trade.

TWO TRUSTS FLIRTING

A. B. C.'s Canadian Annex and the Native Article Talking Consolidation.

According to the best reports obtainable, Canada is about to witness the unique spectacle of a trust swallowing a trust.

Combines or consolidations have not yet lost their fascinations for the Canucks, despite their having had a season's experience with two of them.

The two companies formed about a year ago—the Canada Cycle & Motor Co. and the National Cycle & Automobile Co.—comprise about everything of consequence in the bicycle manufacturing line across the border. The National embraces all of the American Bicycle Co.'s Canadian factories, together with some native ones, and is really an A. B. C. annex, while the first-named combination is a consolidation of the principal Canadian factories. It is the consolidation of these two concerns that is now under way.

According to dispatches from Toronto, negotiations have been proceeding for some time toward the amalgamation of these two concerns. J. N. Shennstone, general manager of the Canada Co., when seen, said that the negotiations were still pending, and it would be impossible to predict the outcome.

If the matter is carried through the new corporation will practically control the bicycle business in Canada. It is understood that the existing factories would be maintained from the outset, and increased in size if the outlook warranted it. The Canada Cycle & Motor Co. is capitalized at \$2,500,000 and the National at \$2,000,000.

The consolidation will scarcely prove an entire surprise, however, as it is known that the National was not much of a money maker; in fact, the A. B. C. recently sent men from New York headquarters to take charge and displace the native talent and to attempt to turn the tide.

The annual meeting of the Canada Co. will be held on November 22, at which time the amalgamation project will come up for consideration.

MARVELLOUS GEAR

Makes the Impossible Possible—Automatic-ly Adjusts Itself to any Grade or Condition of Road, and May Revolution-ize Machinery Construction.

To the cycle trade, which has had a surfeit of "revolutionizers," anything of that nature is now viewed askant, or at least excites but lukewarm comment and attention.

For this reason, the Dieterich variable gear may not immediately arouse the interest it deserves, but on the appearance of things, it merits the interest that time will surely bring.

The Dieterich gear is a revolutionizer—that is certain.

It will make the mechanical sharps and wiseacres say "impossible," and shake their heads as they shook them when the cutting of bevel gears by machinery was first heralded, but for all of that the gear is in evidence to prove its claims.

Its revolutionizing influence is not confined to the bicycle, either; it is wide and far reaching. It seems destined to work wonders in the operation of factory machinery, of automobiles, trolley cars and every other type of mechanically propelled vehicle.

The gear makes the impossible possible; it is so wonderful in its workings that it is difficult to appreciate it, but the fact remains.

Asked his opinion of it, a mechanical and patent expert, who has seen the gear in operation, said to the *Bicycling World* man:

"The object sought is a mechanical impossibility; yet the object is undeniably attained. It's a discovery in mechanics."

Although given in the most sober earnest, and intended to be the furthest possible way removed from romancing, the qualities attributed to this gear partake so largely of the marvellous that it is difficult at first to treat the matter seriously. Yet nothing could possibly be more serious or fraught with more far reaching consequences to machinery of every kind.

As applied to bicycles, it is well within bounds to describe the Dieterich gear as a revolutionizer. In conjunction with a coaster brake device—although the two are in no way necessarily linked—it solves every problem of gearing that has ever been up for solution. With it the rider has at his command not only any change of gear that he may desire, but he has it automatically—no action, either physical or mental—being required on his part. The power applied and the road friction—these are the sole factors to be reckoned with.

Supposing the rider to be physically weak—or lazy—and applying but a small amount of power, the gear becomes low. If, on the

contrary, an unusual amount of power be brought to bear, the gear increases of its own volition, if such a term can be applied to this inanimate object.

On the other hand, if the road friction increases—whether because a hill is encountered or the road becomes sandy or muddy—the gear works down automatically; while when these conditions change again the reverse action takes place—the gear is raised.

In short, instead of a one-speed gear, such

being enlarged to slightly over three inches in diameter—and that neither the weight nor the expense constitute any serious obstacles to its application, the value of the Dieterich gear can be understood.

The inventor of this gear is Ludwig M. Dieterich, an Austrian, who came to this country from Vienna about four years ago. For some time he was employed in the Pope factory, being an assistant to J. S. Copeland, the company's mechanical expert. Since leaving there he has been devoting the major part of his time to the perfection of his gear.

Some six or eight months ago a friend of the inventor who was also a reporter, dropped in and was treated to a sight of the model. Without Dieterich's knowledge he wrote a short account of the wonderful machine. This publication caused the inventor considerable uneasiness, as he was not ready to make the device public. It was, however, so vaguely worded that it attracted little or no attention.

Of the trade press, the *Bicycling World* was the only paper to use the story. Owing to the absence of any particulars it was given by it for what it was worth, the item closing with the remark that the inventor promised further details at a later period.

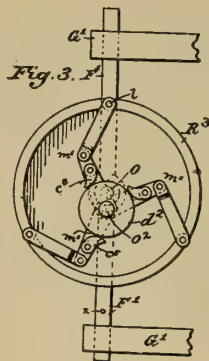
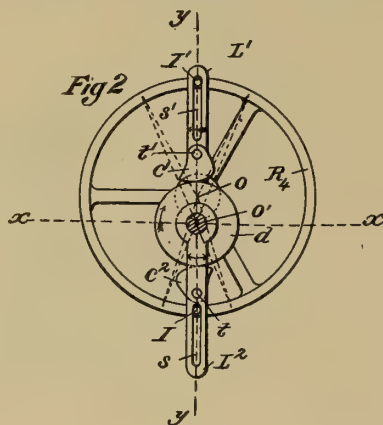
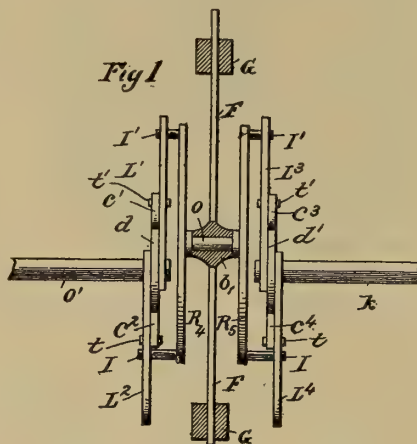
The article in the *Bicycling World*, however, attracted attention abroad, and led to a correspondence between Henry Sturmey and the inventor. As a result negotiations are pending for the purchase of the English rights to the device, which are considered so valuable that a considerable sum of money has been offered for them, and this before even the model has been seen.

During the Automobile Show the *Bicycling World* representative met Dieterich by appointment at the office of his attorney, ex-President C. H. Luscomb of the L. A. W., in the Equitable Building, and examined both the working model and the device as fitted to a bicycle. They fully bore out the claims made for them, and shed a flood of light on the sensation the publication of the facts is causing in the mechanical world, and leading to the preparation of many exhaustive descriptive articles of it.

This is due to the fact that the invention as applied to machinery of every kind promises to be even more of a revolutioniser than when fitted to cycles, motorcycles and other mechanically propelled vehicles.

Every machinist knows how much time is wasted in changing from one speed to another on lathes, drills, millers, etc., to say nothing of the inconvenience of finding it impossible to get the gears to make the desired speed. All this the Dieterich gear does—and more. It adjusts itself automatically and instantly. Should an unexpected strain come—a hard place in a piece of metal, for example, there would be no breaking of tools or straining of machinery, but an instant readjustment that would obviate all trouble.

The Dieterich Gear Co. has been formed at Hartford, Conn., to exploit the gear. The plan under which it will work will be to grant licenses and shop rights to manufacture the device in this country, while



as is in almost universal use on bicycles at the present time; or a two-speed gear such as can be placed on them, but rarely is, owing to its expense and complexity and the necessity for constant operation of the lever; instead of this, the Dieterich gear is a three, four or ten speed gear, as may be desired, the proper one being selected by the mechanism itself without hesitation or exercise of thought or labor on the part of the rider.

When it is added that this wonderful device is contained within the rear hub—this

abroad it will sell the foreign rights to companies formed for the purpose of taking them over and working them. On Saturday last the model was shipped to England. Patents have been taken out in fifteen countries, all of them having been drawn with exceeding care so as to cover the ground thoroughly.

As far as the bicycle is concerned, it is proposed to market the device in much the same manner as the coaster brake. With the latter device it has a considerable affinity, being used, when desired, in conjunction with it. The extra weight entailed by its use is under two pounds, while the cost can be brought down, if manufactured in large quantities, to a figure less than that asked for the coaster brake.

The gear consists of a driving, and an intermediate member. The relative angular speed of the driving and intermediate members may be varied, and at the same time the relative angular speed of the intermediate and driven members changes.

In Fig. 1, O' is the driving shaft, which has fixed to its extremity a disk d. The shaft K on the opposite side of the drawing is the driven shaft and has fixed to it the disk d'. The centerline of the driven shaft corresponds with that of the driving shaft. Between the driven and driving members is a revoluble intermediate mechanism comprising a pair of rings R⁴ R⁵, fixed to opposite ends of the shaft o. The axis of rotation of the intermediate mechanism is adjustable with respect to the common axis of the driving and driven parts. To change the ratio of transmission from driving member to driven member, the relative position of the axes of driving and driven members, and the intermediate member must be changed, and to this end the intermediate member is mounted in a movable bearing.

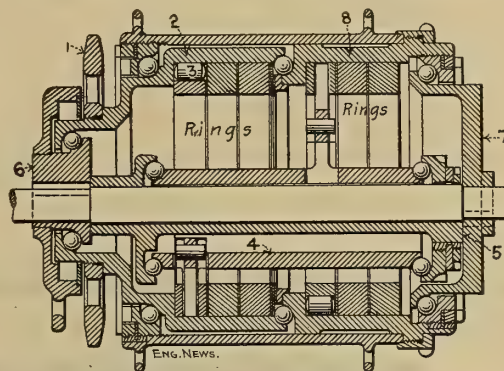
Fig. 2 is intended to explain the principle on which the gear is based. On the driving shaft are mounted loosely a number of arms L¹ L², provided with slots S S'. The wheel R⁴ of the intermediate member carries at its rim pins I I', engaging with the slots S S'. It will be noticed that the intermediate member is shown as mounted eccentrically with regard to the driving member. Now, if we suppose one of the arms fixed upon the driving shaft, and the latter revolving at a uniform speed in either direction, the intermediate member will be caused to rotate in the same direction, but its speed will be periodically variable, being smallest when the pin of the intermediate part, by which power is transmitted, is nearest the centre of the driving shaft, and greatest when the pin is farthest away from this shaft. The arms, however, are not rigid upon the driving shaft, but may be connected to it by suitable dogs or cams, C, acting in one direction only. By studying the form of the cam shown in the Fig. it will be seen that the arm which gives to the intermediate member the fastest motion will be held in engagement by the cam, as the arms may well run ahead, but cannot lag behind the motion of the disk d.

By providing a suitable number of arms

each one is held in engagement with the shaft only a fraction of a revolution, when its cam is released, and another one takes hold. From the intermediate member the power is transmitted to the driven member in the same manner.

With the form of cam connection, as here shown, it would only be possible to give to the driven shaft a speed equal to or greater than the speed of the driving shaft. It is desirable, however, in order to obtain a wide range of speed variation, that the speed may also be decreased below that of the driving shaft. To this end a special form of connecting mechanism has been devised, which is, however, not yet to be made public.

In practice, instead of the arms shown in Fig. 2, toggle levers as in Fig. 3 are employed. This is for obvious reasons a more mechanical construction than the one in which pins slide in slots; but it also introduces an entirely new feature; that of automatically adjusting the gear to the momentary relation of the driving force, and the resistance. In other words, if the power of



DIETERICH GEAR AS APPLIED TO BICYCLES.

the motor is constant, and the resistance opposing the rotation of the driven shaft increases, the gear is automatically reduced (to use bicycle terminology), while, if the resistance decreases, the gear will be automatically raised. The toggle arm which is in engagement with the disk on the driving shaft, and by means of which the driving is effected, tends to force the ring R³ to a position where its axis will be more eccentric. The direction in which the operating toggle tends to move the axis of the intermediate mechanism, is radial, and is, therefore, continually changing; but as the axis of the intermediate part is capable of motion in one direction only, the tendency of the toggle to move the axis in a radical direction is transformed into a tendency to move the axis in this particular direction.

The force with which the toggle tends to produce this shifting of the intermediate axis depends upon the momentary relative position of the two arms of the toggle, that is, the size of the angle between them.

The connection between the intermediate and driven parts is made in the same manner as between the driving and intermediate parts, and the points of attachment of the toggles to driven and driving parts are opposite, as will be seen by reference to Fig. 4. The central pivots of the toggles on one side of the intermediate part lie to one side of

their raddi, while the central pivots of the toggles on the opposite side of the intermediate mechanism lie to the opposite side of their raddi. The latter set of toggles also have a tendency to move the axis of the intermediate mechanism in a radical direction, but this direction is just opposite to that in which the first set of toggles tends to move the axis i. e., into a position of less eccentricity, and as normally the two forces are equal, no displacement results. The equilibrium of these two forces is disturbed, however, when one of the forces acting on the gear, that is to say, either the driving or the resisting force, varies. When, for instance, the resistance increases, the tendency to bring the axis of the intermediate part closer to the axis of the driving and driven parts predominates, and a displacement of the axis of the intermediate part in this direction will occur, whereby the gear is changed. But while this displacement is taking place, the angles made by the arms of the toggles change in opposite senses for the two sets, the tendency to displace the axis of the intermediate part becoming less effective for the second set of toggles, and more effective for the first set, and equilibrium is thereby restored.

Day Steps Down and Out.

Albert P. Day, who has for fifteen years been connected with the American Bicycle Company and its predecessor, the Pope Mfg. Co., latterly as superintendent and still later as manager of the manufacturing department there, has resigned his position. He is succeeded as superintendent by Joseph M. Birmingham. Sales Manager A. L. Pope will, it is understood, for reasons of economy, combine the manufacturing and sales departments under his own management; no other change is contemplated.

Mr. Day has for so long held official relations with the Columbia bicycle that the news of his resignation proved quite a surprise in Hartford, where he is well and widely known. It is understood that Mr. Day intends to take a little rest, which he has long denied himself, from business activity, and he keeps his own counsel as to business plans which he will adopt later on.

Mr. Birmingham, his successor, has been at the Pope factory for thirty years. He first went there as stock clerk for the old Weed Sewing Machine Co. He has filled the positions of stock clerk, order clerk, time-keeper, bookkeeper and assistant superintendent.

The Brownings Sell One Store.

Browning Bros., who conducted extensive jobbing establishments at Ogden and Salt Lake City, Utah, have sold their interests in the latter place, and will hereafter confine themselves to Ogden. The Salt Lake store will be conducted by the Western Arms and Sporting Goods Company, which has been incorporated with capital of \$30,000. W. W. Chisholm is president; M. H. Walker, vice-president; John H. Walker, treasurer; I. Milton Barrett, secretary and manager, and Owen Hogle is the other director and incorporator.



UR boys are out telling the National story enthusiastically, because they know it's true and have hundreds of old friends and customers who corroborate it. It's the same old story which seems to grow interesting to more people every year.

Good bicycles, prices the same in July as in January, good treatment, satisfied customers, steadily increasing business.

Our proposition for 1901 has interested a lot of dealers so far. We think it would interest you. One of our boys will visit you if you will write us.

NATIONAL BICYCLES ARE
NOT MADE BY A TRUST.

National Cycle Mfg. Co.,
Bay City, Mich.

The Way of the Transgressor is—HARD LINES!



WALTHAM MFG. CO.,
WALTHAM, MASS.



Here is some breezy bicycle news, cut from the *Boston Journal*, that every Orient agent ought to know: "Harry Elkes is suffering great inconvenience, he says, by the fact that he has changed to a different make of wheel. The wheel which he formerly rode, and that ridden by Stinson when he broke the record were of the same make. Since signing with another maker, etc., etc.,"—and here follows a hard luck story equal to that of the prodigal son. All of which shows that the best man on the best bicycle is a nutty proposition, but the best rider on earth cannot get out of a bicycle more than the makers put in.

Orient dealers, you are still "it."

Not only that—but we are on the point of putting that into your hands which will keep you in the lead the coming season: The "Tailored Orient" and the "Orient Minute Maker." Orders filled to first applicants.

THE BICYCLING WORLD

FOUNDED
-1877
and MOTOCYCLE REVIEW

In which is Incorporated
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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, NOVEMBER 15, 1900.

Ready at Any Time.

In its last issue The Cycling Gazette gave notice that it purposed "forcing The Bicycling World to prove its charges (against the Cycling Gazette) in the court." The very day this paper reached New York The Bicycling World's attorneys notified The Cycling Gazette that they were prepared to accept service at any time and that The Bicycling World would welcome the opportunity that such a suit would afford.

Repeal or Amend.

It has been truly remarked that the best way to get rid of a bad law is to enforce it.

While not, strictly speaking, a bad law, the one forbidding the carrying of gasoline, naphtha, etc., on passenger steamers of every description is a very inconvenient one. Furthermore, it is destined to grow more in-

tolerable every year that it remains in force.

On the theory that misery loves company, the fact that loose hay and other inflammable materials are placed under the ban equally with gasoline is not without a kind of satisfaction. Indeed, it would be well if the scope of the law were much larger, for the greater the inconvenience caused by its enforcement the more chance would there be of its being speedily repealed.

For in its repeal or amendment seems to lie the only hope of relief. Now that attention has been called to this almost forgotten law, it is a foregone conclusion that the policy of non-enforcement will not be continued. As long as it remains on the statute books steamboat inspectors must enforce it, and the steps that have already been taken to this end are but a forerunner of more sweeping ones that will in time extend so as to cover the entire country.

On the other hand, it must be confessed that the task of repealing or amending a United States law is no easy one. Only Congress, which passed the law years ago, can undo its work, and before it the battle must be waged.

Yet, difficult as it is, there can be no two opinions as to the course to be taken. Repeal or amendment must be brought about, else the law will prove a millstone that will hopelessly retard motorcycle progress.

An Epoch Marker.

When the coaster brake was first introduced to public notice few people could bring themselves to regard it seriously.

Where it was not condemned as unmechanical its utility was questioned. No demand for such a device existed, consequently it was held that none could be worked up for it.

We all know how that delusion has been dispelled. At the present time the coaster brake occupies a very prominent place in cycle construction, and is held by many observers to be the greatest improvement since the pneumatic tire.

The use of the coaster brake has engendered a desire for another step in the same direction—viz: a changeable or variable gear.

This desire is partly met by the two-speed devices that are already on the market. Yet in spite of the advances that have been made in their construction they have made no headway, and do not seem likely to do so. By some, however, this is held to be due to a lack of the proper pushing.

The appearance of the Dieterich variable gear, described in detail elsewhere, causes the matter to assume an entirely different phase.

Here is what is wanted, and more than was ever asked or dreamed of. It is a realization of what has always been held to be impossible, and it promises to settle at once and forever all discussions about gears.

With it there will be no such thing as a high, a medium or a low gear. It will be a gear, pure and simple, and will adjust itself automatically to every condition of grade or road surface.

And this will be accomplished without the sacrifice of other qualities. Neither weight nor cost nor looks nor reliability will suffer.

In short, the Dieterich gear bids fair to take its place in cycling history—to mention only its smallest scope—along with the ball bearing, the safety and the pneumatic tire.

It will put the finishing touches to a machine which many competent critics consider beyond improvement.

Could more be asked?

The Power of the Dealer.

We are so prone to speak of the "public demand" that the power of the dealer is too often underrated, if not lost sight of.

This is not strange, however, when the dealer himself does not appreciate his influence. But the fact remains that, after all, the "public demand" is the demand of the dealer.

As has been said before, his trade is largely what he makes it.

If he elects to push cushion frames, the demand will be for cushion frames.

If he elects to advance the interests of the chainless the "public demand" will be for chainlesses.

If he elects to push a particular tire or saddle or lamp or bell, the call will be for the particular article concerned.

He can usually sell what he tries to sell; the public will take that which he offers and advocates most earnestly.

Of course, the term "dealer" is here used in its collective sense, but as an individual his influence is not inconsiderable in shaping a "public demand."

If he be of some prominence in his locality his advocacy and advertising of a particular type results in sales; his rivals feel required to meet competition; they call on their manufacturers for wheels of the sort and a few calls of the sort turn the scales

and lo! a "public demand" has been created.

This far reaching power of the retailer has been even more effectively illustrated by the campaigns waged by two manufacturers marketing different types of tires. One has "gone to the public" on the merits of his tire; he has advertised in the expensive magazines and daily papers, has plastered dead walls with the advertisements of his wares, has courted bicycle manufacturers and done everything to create a "public demand" for his tire; the response has not been heavy; he overlooked the dealer; he gave him but a minimum of attention.

The other manufacturer, while not overlooking the daily paper, the magazine or the bicycle maker, has patronized trade papers that reach the dealer, and through the medium of his travellers has given the dealer the maximum of attention; he has courted him assiduously. The result is a magnificent trade. The dealer has demanded the tire and so insistently that bicycle makers, although themselves not favoring it, have been forced to bow to what we term the "public demand."

It is this influence of the dealer that makes for a better condition of things next year. Those that survive have their business instincts sharpened to a fine edge. They appreciate that it is "good business" to push the types that pay the best profits; they realize that in the cycle trade it is no longer "quantities" that rule, but quality and qualities.

With this idea dominant, the "public demand" ought to be and, we believe, will be for the higher grades of all kinds—the kinds that give the least trouble and the largest profits.

It is certainly well within the power and province of the dealer to bring about such a condition.

Improved Retail Conditions.

It is, perhaps, just as well that the volume of instalment business transacted during the past season has not been as great as usual.

Had it been up to the usual mark there would have been more than the usual trouble in making the belated collections. This was always great during the non-riding season, and the shrewd dealer usually recognized this fact and was chary of plunging when the season was well advanced.

Fortunately, also, the class of buyers has undergone some change, and is still doing so.

Nowadays purchasers of new bicycles not only want them, but they are able to pay for them or to see their way clear to doing

so. They do not view the matter in the light which was a favorite in former years, viz.: that a bicycle was wanted and the paying for it was a matter that could be left to take care of itself.

The pernicious influence of this class of buying can scarcely be overestimated. The trade was, of course, the chief sufferer; while it profited very little even if the risk turned out well.

However, this was a phase of the craze, and it has passed with the craze. Neither dealers nor makers could now be persuaded to take the risks they formerly did; and this is just as well.

There is every probability that the retail end of the business also will hereafter be conducted on a sounder and a saner basis.

Patience in Plenty.

It is both fortunate and unfortunate that the motorcycle will, for some time to come at least, appeal most strongly to and be used most by cyclists.

From this class of users will come much of the abuse of this type of machine. But there will also be shown toward it a toleration such as it would not be easy to match in any other pastime.

The average cyclist expected much and gave little to his machine. It had to be made almost foolproof and unbreakable under any but extraordinary conditions before it ceased to give widespread trouble. It was useless to expect anything but abuse and neglect from a large proportion of riders.

But the same rider who treated his machine in this manner was not easily put out of patience with it. He might grumble and say hard things about it; but there was always a saving clause, born of the knowledge that much of the blame was unmerited. Besides, the machine was too highly thought of to permit such happenings to more than cause passing displeasure.

It may be put down as pretty certain that the motorcycle will go through much the same experience. Riders will make unreasonable and unreasoning demands on it, ignore the cardinal injunction laid upon them—to learn the workings of the intricate and complicated mechanism confided to their care—and yet expect to have everything go right.

They will expect to fill the gasoline tank, put in a measure of lubricating oil, get into the saddle and start off. As long as everything works properly all will be well; but when something happens and the engine stops with a kick they will find themselves in a very disagreeable predicament.

A few experiences of this kind would dampen the enthusiasm of many people, but not that of the old cyclist. It will only spur him to learn something about the machine he has undertaken to manipulate, and in a short time he will master it sufficiently to attend to the most prolific sources of trouble.

Unless a rider does this he will bar himself from the highest enjoyment of his motorcycle. He will be like the cyclist who starts out for a ride without a pump or wrench, but with a difference; the latter is pretty certain to fall in with indulgent fellow-rider or eager repairer, and thus escape the consequences of his carelessness. No such good fortune is likely to befall the motocyclist.

But it makes little difference what happens to the motorcycle, or whether it is its fault or the rider's that causes the trouble. Such is the fascination of the pastime that the latter will bear with all the inconveniences that fall to his lot; not always cheerfully, but in some fashion.

It is, then, a good thing that if the motorcycle is destined to encounter recklessness and carelessness there will also be stored up for it a goodly supply of forgiveness.

Even without this, however, it could be depended on to take care of itself.

Although France is fairly well advanced in the matter of motorcycles, while we are but just getting under way, our Paris correspondent's suggestion that we cross the water with our machines and awaken the Frenchmen is not as empty or as farfetched as it may seem at first blush. It is a suggestion that may profit several people, and one that may well be kept in mind.

In bicycle factories in which so much of the work is performed during the winter months the workmens' comfort is a subject that ought to be worth consideration. In this connection the article, "Factory Comforts," published on another page, should be worth attention and digestion.

Such straws as are now being whisked by the trade wind make it appear plain that 1901 will be a "chainless year." Comparatively speaking, the chainless has been a long time coming, but it "has a sprint on" now in real earnest.

The stands that stage motorcycles at the cycle show will be the stands that will attract the people, and, we believe, the dealers. It is a fairly safe prophecy, and one that intending exhibitors may well keep in mind.

VETERAN HART'S VIEWS

**Philadelphia Pioneer of Retail Conditions
—Has Faith in Chainless and Motocycle.**

Few dealers, if any, can point to a longer or more extensive experience in the trade than can H. B. Hart, of Philadelphia.

His term of service almost parallels that of the trade. Graduating—as did many other successful workers—from the sewing machine business, he turned his attention to the new vehicle, and sold bicycles as soon as they began to bear an American name plate. For more than twenty years, therefore, he has been selling cycles, and a list of the different types handled would be a pocket edition history of the trade.

Being a man of very conservative temperament, yet sagacious and far sighted, Hart's views are always interesting, not to say valuable. When seen by the *Bicycling World* man at the Automobile Show last week, he was in a communicative mood, and talked freely of conditions existing at the present time.

"It has been an off year, of course," he said, "and the only thing that has kept us from running behind has been the chainless. Had it not been for that we would have had a considerable loss. With its help, however, we have been able to make a very creditable showing, considering the depressed condition of the trade.

"But the bicycle business is not done for by any means," he went on. "Already it is becoming apparent that there is going to be a change for the better next year. There are certain indications, not pronounced but very general, which point unmistakably to this conclusion.

"The better class of riders, who have been lukewarm of late, are beginning to show renewed interest in cycling. This is evidenced in a number of ways. Sometimes they bring out long unused machines, and at others begin to talk again of cycles and cycling. The latter has ceased to be a fad, and, having paid the penalty for being such, the time is right for an improvement in the existing conditions. I think it is surely coming, and while it will not be as marked as might be wished, it will undoubtedly do good."

The subject of motorcycles was then touched upon. That the veteran dealer had given them considerable thought was evident from his remarks.

"There is unquestionably a field for motorcycles as well as automobiles," he said. "Riders want them, and I could sell a number of them if I could only get them. I have talked to our people about them"—meaning the American Bicycle Co.—"but can't get them to take hold of them. Only yesterday I talked with Vice-President Merseles on this subject, and was told that no bicycles were being made."

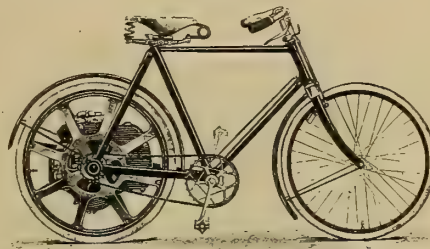
Much interest was displayed by the Philadelphia pioneer in the recital of the *Bicycling*

World man's experience with motorcycles, both bicycles and tricycles. Especially was he impressed by the account of tests of the former. The handling of the machine, the steering, its stability and ease of control were points that were taken up one by one, and each encomium bestowed elicited an approving nod.

"What our people ought to do," he said, "is to take a motor bicycle and put it to practical tests. Buy it from some other maker, if necessary, and see if it is really dangerous or unmanageable. If it is, and this can be proved, it will settle the matter. If not, it should be manufactured, as it will undoubtedly meet with a large sale."

Singer Looking This Way.

There are reasons for stating that the Singer Cycle Company, of Coventry, which has taken up the Compact motor and which is now building motor bicycles, will pay some attention to the American market in one



way or another; just how soon is not definitely known, but the intention is there just the same. The accompanying illustration shows the machine which the Singer people are turning out.

Want Insurance Money.

Suit was begun at Indianapolis, Ind., last week by the National American Cycle Company against the Vernon Insurance Company, of Indiana, to recover \$2,000 on a policy of fire insurance claimed to have been issued on October 4, 1899, on the store and merchandise stock of W. W. Thomas and by Thomas transferred to the plaintiff. The property was destroyed by fire on November 7, 1899.

The National American Cycle Company further instituted similar proceedings against the Indiana Insurance Company, of Indianapolis, to recover \$1,000 on a policy, claimed to be due by the burning of W. W. Thomas's store, Thomas, as stated, having transferred his policy to the plaintiff.

Florida is His Field.

Having found the sale of bicycles no longer a profitable one, Herbert G. Wheeler, a former Marlboro (Mass.) dealer, some years ago turned his attention to a more profitable field. He went to Florida and opened a store at St. Augustine and ran it during the winter months. Meeting with success he extended the sphere of his operations, and now has some half dozen stores in various towns in the vicinity of St. Augustine. Last week he left Marlboro for Florida to arrange for the opening of these stores.

CYCLE SHOW ASTIR

Manager Sanger Makes Ready for the Sixth Annual—Motorcycles to be Featured.

With the automobile show out of the way, Manager Sanger, of Madison Square Garden, is now making ready for the cycle show—the sixth annual—which is fixed for January 12 to 19.

The diagram and price list of show space is being mailed this week. The arrangement will be the same as in previous years, save that on this occasion automobiles, which will be also admitted to the exhibition, will not be permitted to occupy the centre of the stage, so to speak. All of the spaces in the centre of the arena will be given over to bicycles, while the spaces on the ground floor and immediately adjoining and surrounding these will be reserved for automobiles; the galleries, as heretofore, will be devoted to tires and the other accessories.

Space will be allotted in the order of application. With each rented space there will be given five coupon books, containing four admissions for each day, being equal to 140 admissions for the entire period of the show. These admissions are good for exhibitors and their employes, and are to replace the exhibitors' buttons formerly used.

Motorcycles are destined to play a considerable part in the exhibition, and will surely prove the drawing cards; the interest of the public in the automobile show makes this plain, and Manager Sanger is astute enough to recognize the fact and to make the most of it.

McDowell Joins the Bretz Staff.

John McDowell, the veteran traveller, so long with the late Union Cycle Manufacturing Company, has engaged with the Bretz Cycle Manufacturing Company, of Syracuse, and will represent them in New England. He will "take to the road" in the course of two or three weeks; meanwhile his address is Needham, Mass.

Offer to Buy Bonds.

It is reported that a representative of a Middletown, Conn., concern has been offering to buy the bonds of the Keating Wheel and Automobile Company at a considerable discount from their face value. It is said that a considerable number of bonds have been sold at the price offered.

Suits Discontinued.

Two suits against the Clipper Chilled Plough Company, of Elmira, N. Y., were discontinued in the City Court last week. One was brought by the American Saddle Company, and the other by Howard Burgess.

Got Their Discharge.

Marshall E. Smith and Wayland H. Smith, trading as Marshall E. Smith & Bro., the Philadelphia parts and sundry dealers who failed last summer, have been discharged as voluntary bankrupts.

DeDION'S DEVELOPMENTS

Famous Frenchman Makes Some Important Improvements in His Motorcycle.

With practically all gasoline engines modelled on De Dion lines, it follows that interest in the De Dion improvements is widespread. The De Dion people have not disappointed expectations, either. Their motor tricycle for 1901 has made its appearance on "the other side," and proves to embody some valuable developments and refinements.

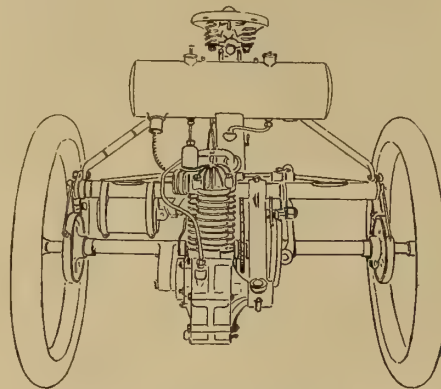
The most important is undoubtedly the employment of a clutch which permits the engine to be thrown in or out of use at will. This contributes immensely to the ease of starting the tricycle, which hitherto has required an exercise of main strength that made the machine an impossible one for ladies and weak or elderly folk generally. By throwing out the clutch, which is done by means of a lever on the handle bar, the machine may be started by pedalling, and then, after it is under way, another pressure of the lever brings the clutch and the engine into play gradually and without the short, jarring jerks common to other motorcycles.

The clutch will be seen in the rear view at the right side of the gear case inclosing the lower half of the motor. It is a simple cone clutch, but the leather lining is placed on the male drum edgewise and crosswise in sections of about a quarter of an inch square and one and a half inches long. The drum is recessed on its outer face, and the pieces of leather are cemented into the recesses, but project above the metal face. To prevent any slipping round the drum of these leathers, pieces of metal are pinned crosswise into the recess at intervals; these are the same shape as the leathers, but are not quite so thick. The female portion of the clutch is all metal, and the gripping cone is kept up to its place by a number of spiral springs placed as near as possible to the outer circumference of the cone, and exerting an equal pressure all round. To free the clutch the springs are compressed by pushing the male cone inward with the hand lever, which frees it from the female cone, and, on releasing the lever, the male cone will, by the action of the springs, grip again. To compensate for wear in the leather an eccentric gun metal bush is fitted to the fulcrum of the forked lever, which gives the necessary amount of adjustment.

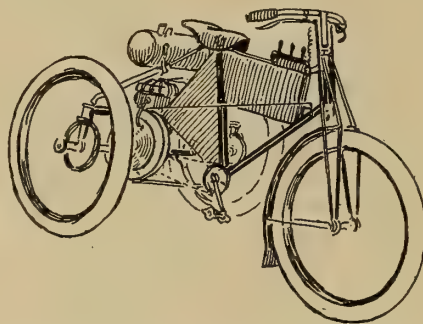
In the illustration the clutch arm with two rollers is visible, and is operated by means of the right-hand brake lever on the handle-bar. In starting now it is only necessary to overcome the compression of the engine, as the tricycle, of course, remains stationary until the clutch is let in. In descending hills its advantages are very great, as the tricycle runs down quite "free," and the engine can be stopped and restarted before the bottom

of the slope is reached by putting the clutch into work again.

Should the motor slacken in climbing a steep hill, the clutch is left in and the pedals themselves are used to assist progression in the usual way, but it is also quite easy to start on a steep incline, as the engine is got up to its full speed before the clutch is thrown in.



Among other improvements is the fitting of the second band brake inside the side wheels, and not on the front, as hitherto. These two hub brakes are worked by the left-hand lever on the handle-bar. The right-hand lever, as has been said, operates the clutch, and when pulled up quite tight also applies the band brake on the balance gear box. It will be understood that the normal position of the clutch is "in." It is only necessary to use the lever when it is desired to free the engine.



The induction coil has been removed from its old position under the axle bridge, and is fitted in the end of the tank, which is prolonged for the purpose, and the vital high tension wire is absolutely protected from short circuiting. Hitherto in heavy rain the water running along the high tension wire on the coil on the axle to the sparking plug caused short circuiting, but now the high tension wire to the coil is protected at the top by an inverted vulcanite cap, and, as this also covers the top terminal, that cannot get wet, so that surface connection between it and the plug cannot be made by heavy rain. The new De Dion lubricating pump is also fitted to the central division of the tank, while the right-hand side is devoted to the carriage of spare gasoline.

Folding Bicycle Wanted.

The Bicyclin World has an inquiry for folding bicycles for export. Who has any for sale?

AFFECTS MOTOCYCLES

Decision in the Selden Patent Case Far Reaching and of General Interest.

It is not surprising that a sensation has been created by the decision made last week by Judge Coxe, sitting in the United States Circuit Court for the Southern District of New York, in overruling the demurrer filed by the defendants in the Selden gasoline patent suit.

The far reaching nature of the decision is due to the fact that the Selden claims are broad and basic, and that Judge Coxe went out of his way to pronounce both on the patentability of the Selden motor and the validity of the patent. The battle being waged is one involving all makers of gasoline vehicles, and first blood has been scored by the Electric Vehicle Co., which owns the Selden patents.

On November 5, 1895, patent No. 549,160 was granted to George B. Selden, of Rochester, N. Y., on a road vehicle, the motor being a liquid hydro carbon gas engine of the compression type. The application had been filed on May 8, 1879. This patent is now owned by the Electric Vehicle Co., and as its claims cover practically all types of gasoline driven vehicles now in use, it is apparent that the Vehicle Co. will control the situation if these claims are sustained.

The attorneys for the defendants filed a demurrer, which asserted that as there was nothing new in Selden's invention it was not patentable; and, further, that the claims made did not cover combinations but aggregations only. This demurrer was dismissed by Judge Coxe, and the way is now cleared for argument on the validity of the patent.

Chainless for Everybody.

With the bevel geared chainless rising higher and higher in public favor, the approaching season holds promise that the rising tide will attain sufficient force to make 1901 a chainless year. More makers than ever before will be making bicycles of the type and it follows that more dealers will be selling them.

Under the new conditions, too, the manufacture of bevel geared bicycles is immensely simplified. With the Leland & Faulconer Mfg. Co., of Detroit, not only supplying gears but complete fittings ready to be brazed in the frame, the chainless is within the scope of all.

The fittings are illustrated on another page. The pictures show the details admirably, but they give small idea of the superb workmanship and finish of the goods themselves; they must be seen to be fully appreciated.

The Bicycling World can speak from personal experience concerning the merits of the L. & F. gears. The experience covers two years and it is not mere "puffery" to say that no words are too strong to express the satisfaction that is felt.

THE TRADE WAS THERE

Automobile Show Attracted and Interested Both Cycle Maker and Cycle Dealer.

While the Madison Square Garden show last week was an automobile show, and as such marked by characteristics peculiarly its own, it was not that solely.

Motocycles were exhibited on the stands and joined the unceasing procession of vehicles whirling around the board track. Faces well known in the bicycle trade were thick as leaves in Vallombrosa. They promenade the gallery and aisles and thronged the spaces set apart for the automobiles; both as spectators and as exhibitors they were present in such numbers as to give the show a semblance of a bicycle show.

On the Waltham Mfg. Co.'s stand the Orient bicycles, tricycles and quadricycles fairly divided attention with the runabout and the victoriette. There could be no better testimony to the interest taken by the trade in motocycles than was borne by the presence of out-of-town dealers. They came to the Garden to look at both motocycles and automobiles, and they showed their faith in the former by placing bona fide orders for them. The result was both surprising and gratifying.

A similar interest was evinced in the Canda tricycles and quadricycles, in the A. B. C. tricycles turned out by the Lozier plant, and in the exhibit of De Dion motocycles. Without being overshadowed by the automobiles, it was felt that these machines were of an entirely different class. They were cycles, and as such possessed a peculiar interest for the bicycle trade.

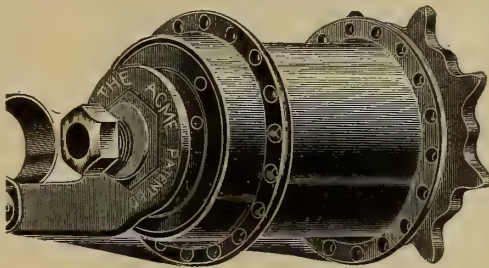
It was not alone the motocycles, however, that claimed the time of the cycle tradesmen. Their influence was also felt where the automobile was concerned. In both the construction and sales departments of concerns manufacturing the latter they were prominent, and easily held their own. Moreover, there is very little probability that the hold thus acquired will be shaken off.

Among the well known tradesmen present—either as visitors or exhibitors—were the following from out of town, the metropolitan district also being strongly represented: Charles Clifton, of G. N. Pierce & Co.; John R. Keim and G. A. Boyer, of John R. Keim; F. F. Weston, Seymour Mfg. Co.; H. C. Wilcox, American Wood Rim Co.; F. W. Wood, Indiana Chain Co.; Harry Angle, Buffalo Metal Goods Co.; H. T. Dunn and Harry Fisk, Fisk Rubber Co.; W. E. Metzger and W. C. Rands, of Detroit; W. S. Gorton, Standard Welding Co.; C. H. Metz and W. D. Gash; Waltham Mfg. Co.; E. C. Stearns, Syracuse; C. A. Persons, Persons Mfg. Co.; W. H. Gates, Baldwin Chain Co.; A. D. Dana, The Crosby Co., Buffalo; W. H. Fauber, Chicago; H. Walburg, Miami Cycle & Mfg. Co.; H. E. Raymond, B. F. Goodrich & Co.; W. B. Miller, Diamond Rubber Co.; R. D. Garden, Philadelphia; H. B. Hart,

Philadelphia; A. B. Curtis, Reed & Curtis; F. L. C. Martin, Plainfield; W. D. Wilmot, Fall River; A. F. Rockwell, Liberty Bell Co. Frank Mossburg, Frank Mossburg Co.; C. A. Seiberling, Goodyear Tire and Rubber Co.; Dave Smith and Edw. Miller, Edw. Miller & Co., Meriden; R. H. Welles, Badger Brass Co.; A. E. Benjamin and W. W. Kenfield, Rochester Mfg. Co.; D. J. Post and H. Lester, Veeder Mfg. Co.; H. A. Lozier, senior and junior; A. A. Pope, R. L. Coleman, T. B. Jeffery; T. R. Palmer, Pennsylvania Rubber Co.; J. H. Sager, Rochester; Banker Bros., Pittsburg; J. P. Gilson, Hartford Rubber Works; Kirk Brown, American Dunlop Tire Co.; H. Smith, G. & J. Tire Co., and F. C. Billings, of the Billings & Spencer Co., and Fred I. Johnson, of the Iver Johnson Arms & Cycle Works.

A Good One from Rochester.

The latest applicant for public favor, the Acme coaster-brake, made by the Acme Coaster-Brake Co., of Rochester, N. Y.,



should speedily make its way into favor. Its construction merits attention, both for its ingenuity and soundness.

The parts are simple and strong, constructed with a view of providing for the heavy strain that must necessarily fall to any device of this nature, and there are no delicate springs or weak parts which have heretofore been a source of annoyance both in the assembling and operation of coaster-brakes. The bearings are thoroughly lubricated with an anti-friction compound before leaving the factory, and it will not be necessary to renew this during a riding season. The breaking surface, which is located between the end bearings on the inner surface of the hub, is thoroughly coated with graphite, which, while it does not lessen the effectiveness of the brake, entirely prevents noise when the brake is applied heavily.

Ball retainers are provided throughout and seven, eight and nine-tooth sprockets are furnished.

Another Insurance Suit.

Suit has been brought by the Canada Cycle & Motor Co. against the Victoria-Montreal Fire Insurance Co. to recover \$4,000 insurance alleged to be due on a policy on the Welland Vale works at St. Catherine, Ont., which were burned last spring. The case will be tried before a judge instead of a jury.

Post yourself on Motocycles. Study up on the cycle of the future. "Motocycles and How to Manage Them" will help you amazingly. The illustrations show the "insides" of the motor and the text explains. For sale by The Goodman Co., New York. Price 75 cents.

WHAT KEATING IS WORTH

Appraisers Finish Their Work and Submit Their Figures—Total, \$147,897.51.

The report of G. Baldwin Osborne, of New Haven, and W. B. Douglas, of Middletown, appraisers on the property of the Keating Wheel and Automobile Company, of the latter place, was filed with the clerk of the Superior Court last week.

The amount of their appraisal is \$147,897.51, divided as follows: Real estate in Middletown, \$76,626.58; equity in real estate in Springfield, Mass., \$500; equity in bills receivable and accounts in sales department and manufacturing department, \$6,972.64; tools and fixtures, \$4,148.33; shafting, pulleys, hangers, belts, etc., \$4,868.06; machinery account, \$37,459.50; office furniture and fixtures, \$1,452.85; miscellaneous, \$8,400.51; fixtures, stock, and stock in process of manufacture, \$7,469.04.

The report of receivers' bills from September 15 to November 1 was as follows: Receipts, cash on hand, September 15, \$4,037.59; bills and accounts receivable, \$286.23; bills payable, \$5,000; total, \$11,900.42. Expenses, salaries, \$644; labor, \$2,511.35; manufacturing supplies, \$160.64; fuel, \$210.95; general expenses and incidentals, \$450.73; insurance, \$2,006.85; total, \$5,984.62. Paid on assignee's accounts, \$703.97. Cash on hand, November 1, \$5,211.83.

Hearsey Has a Fire.

As the result of a fire which attacked the store of the H. T. Hearsey Vehicle Co., Indianapolis, Ind., last week, this concern suffered a loss of about \$20,000, fully covered by insurance.

The origin of the fire is unknown. One theory is that the electric wires became crossed and set fire to the woodwork. The fire was discovered shortly after 6 o'clock in the evening, and it was only after much hard work that the fire department was able to save the entire building from being swept away. The flames destroyed a number of bicycle crates and wood rims, together with about fifty new bicycles and a number of second-hand ones. A large number of automobiles, carriages, etc., were damaged by smoke and water.

In spite of the severity of the fire, there was no interruption to the business of the Hearsey Co.

Kirk Depot in New England.

The Kirk Mfg. Co., of Toledo, Ohio, will establish a New England distributing depot in Boston, probably before the first of the year. E. Buffum, who for several years past has been identified with the Yale bicycle, will be in charge.

Travellers are Ready.

Samples of the 1901 pattern Iver Johnson bicycles are almost ready to be turned over to the force of travelling men. About a dozen of the latter are now at the factory, ready to start out as soon as they receive the machines.

When it comes to speed

Fisk Tires are as much a leader as they are in comfort and
and quality. As evidence, at Brockton, Mass.,

Will C. Stinson
On an Orient Leader
Fitted with Fisk Tires

covered 40 miles and 330 yards in the hour.

A Record that will stand

for many moons as a monument to the first man, the first
wheel and the first tires that ever traversed 40 miles or over
in sixty short minutes.

Fisk Tires are record makers and record breakers.



FISK RUBBER COMPANY,

CHICOPEE FALLS, MASS.

BRANCHES:

SYRACUSE, 423 So. Clinton St.

BUFFALO, 28 W. Genesee St.

DETROIT, 252 Jefferson Ave.

CHICAGO, 36 Dearborn St.

SAN FRANCISCO, 159 New Montgomery St.

FACTORY COMFORTS

Lack of Them the Hole Through Which Profits Slip—Improvements Possible.

With the beginning of winter the employer in any line of manufacturing in which the pay roll is a factor of consequence will find it profitable to give serious thought to the problem of making his shops as comfortable as circumstances will permit.

Consideration for his employes need not of necessity influence his judgment or shake his actions in any degree, says the Iron Age. Whether it should or not is a matter of opinion, but in any case he would do well to avoid anything like ostentatious altruism. The best results will come from a strictly practical consideration of what will promote his own interests and earn the largest profits.

A judicious and even liberal expenditure in correcting or modifying conditions which render even willing workmen incapable of rendering good service will usually be found a substantial economy. In dealing with well paid labor minutes count, and a very small variation in the average productiveness of a day's work will often make all the difference between profit and loss. It is a mistake to suppose that the success of a manufacturing business depends wholly on what is done in the office. The best laid plans of the managers often miscarry for no better reason than that the machinery of production fails to respond to the demands upon it, and costs are increased by causes not foreseen or provided for.

Few workshops are comfortably heated in cold weather. Most of them are much too cold to permit a man clothed suitably for his employment to keep his physical energies toned up to the demands of a full day's work. This will be shown very conclusively and at small expense by a brief experiment of putting the clerks and accountants to work in a temperature between 20 and 40 degrees Fr.

The average workman in a cold shop cannot maintain through nine hours the energy needed to keep him warm, becoming exhausted long before his day's work is finished. A man whose feet are benumbed and whose hands are paralyzed by frost becomes dull witted, apathetic and incapable of sustained effort, for the reason that the sluggish circulation robs the brain of the blood which it needs to sustain its action. He approaches the end of his day's work sleepy, ill natured and physically exhausted, his nerves relaxed and his muscles flabby.

When it can be done, a workshop should be kept as near an average temperature of 60 degrees as possible. The fuel cost of doing this is usually much less than the resulting advantages are worth, if the arrangements are designed and executed under the direction of an expert. Amateur work in shop heating is usually expensive and unsatisfactory. The man who has no other

place to eat his dinner than a drafty corner of the mill, and nothing better to sit on than an ingot mould or a sand pipe, does not return to his work when the whistle blows rested or refreshed, and his value for the remainder of the day is a steadily diminishing fraction of his normal capacity.

In some large works the interesting experiment of running a restaurant for the men is now being tried, with every promise of good results. The daily bill of fare is simple, consisting of coffee, hot soups, meat stews and baked puddings. The charges per portion, which are adjusted to cover cost, range from 1 cent for coffee to 5 cents for the meat dishes. In one instance the charge is a trifle higher, but any profit remaining after the expenses of the restaurant are met is turned quarterly into the sick benefit fund. The hot lunch plan is one which commends itself to approval where the conditions permit. Many

MORGAN & WRIGHT TIRES

ARE GOOD TIRES

ONLY WAY TO CURE
SOME LEAKY TIRES IS
TO PUT INNER TUBES IN
THEM, THUS MAKING
THEM DOUBLE-TUBE TIRES

MORGAN & WRIGHT

CHICAGO

NEW YORK BRANCH: 214-216 WEST 47th ST.
BOSTON BRANCH: 80 BATTERY MARCH ST.,
Near Fort Hill Square.

of the men who formerly went home or to nearby saloons and restaurants now remain at the works, and find it both agreeable and economical. They get better and more nourishing food at less cost than before. In cold weather a comfortable and leisurely midday meal, hot and gustatory, quickens the sluggish pulses and puts a man in condition for the afternoon.

The winter output of a shop of any kind depends a great deal upon how it is lighted. During the short and dark days from November to April a great deal of time is lost by reason of the fact that the men cannot half see what they are doing. Artificial light is steadily cheapening; but, whatever its cost, it is cheaper to have it than to do without it, if work is to be done. The economizing of light is as great a business mistake as its waste. How to light a shop so as to secure the best results from a given expenditure is a problem for the expert, but it is usually left to millwrights and superintendents who know little about it.

In the matter of toilet facilities conditions vary so widely that it is difficult to generalize. Much depends upon the class of labor employed, the number of men to be accommodated, the nature of the work performed and other conditions. Good sanitation pays under all circumstances. Generally speaking, it is a wise business policy to give the men as good toilet facilities as they will use properly. When different classes of men, having widely different tastes and habits, are brought together in a great industrial organization distinctions exist which should be recognized.

We know of one interesting experiment in this line which may be suggestive to employers. The establishment in which it was tried is a large one, employing several classes of labor. It was long ago obvious that nobody was suited by a system which brought all classes together in common wash rooms. The officers of the company thought the matter over and decided that what was good enough for the rougher element, who in other shops had been used to a bucket of water, a cake of yellow soap and a bunch of misappropriated waste for a towel, was insufficient and unsuitable for the better class of mechanics and engineer apprentices, many of whom had the social standing of gentlemen. The result was the erection of a detached frame building, simply but sufficiently fitted up with the facilities for a toilet, including clothes closets, wash basins and shower baths. To twelve men, representing the element who instinctively shunned the sinks in the rush of closing, the proposition was made that if they would form a club of 100 of their own choosing, to be governed by their own rules, they could have the use of the building at the pleasure of the company. The conditions were that they should pay for light by meter measurement, and for heat and hot water what the fuel cost. They must also employ a competent and faithful porter, who would keep the place clean and orderly, and provide whatever they used in the way of soap, sponges, towels, etc.

The club was formed, with dues of 20 cents per week, each member inclosing the money in a pay envelope bearing his name and date, and dropping it in a box on pay day. This gave an average income of about \$19 per week, the club not being always full. It has met all expenses and left a small surplus, which is from time to time reduced by the remission of dues. The plan works admirably. Membership in what is known in this works as "The Dudes' Club" is something of a distinction. Its influence has been felt throughout the works.

We can very well understand that there are many establishments in which this plan or any modification of it would be impracticable; but it is needed in many places where it has not yet been tried. To recognize differences in tastes and habits and encourage whatever makes for the upbuilding of self-respect and commands the respect of others works like the university settlement in the slums, by establishing a sphere of influence which is elevating and improving.

A. B. C.'S CHAINLESS

Features and Refinements of the Model for Next Year.

Via the Providence (R. I.) route, from which quarter the first authentic information regarding the new patterns originating at Hartford usually appears, comes a description of the American Bicycle Company's 1901 chainless bicycle.

Among the chief changes are to be noted a provision for more convenient lubrication of the gears, due to an improved method of getting access to them; a shortening of the distance between the crank hanger and the rear wheel axle, and a probable reduction in the size of the frame tubing to one inch and a strengthening of the front fork sides. A few other changes are probable, but they are not of a radical nature.

One minor defect in the chainless wheels was called to the attention of the designers in Hartford during the summer, says this authority. Perfect lubrication insures the noiseless running of bevel gears. As constructed since 1897 no special provision was made for placing thick oil or vaseline and graphite directly in the teeth.

At first the theory was that one greasing was sufficient for the season. But experience proved that more frequent lubrication was necessary, particularly when the wheel was used regularly and run long distances. The average rider could not be expected to uncover the master gear in the crank bracket or remove it for the purpose of oiling the dry teeth, the operation being a difficult one for the person not accustomed to the use of wrenches and spanners on nuts and plates set up tightly.

In the 1900 construction the nut holding the left crank on the axle must be unscrewed and the right hand crank and axle removed. Next the face plate protecting the gear from

dust must be taken out. A spanner having two pins for insertion in two holes is employed. As a rule, the plate is liable to stick, and great care is required to prevent slipping and marring the polished metal. Often the practised repair man lets the tool slip and disfigures the nickel. The amateur consequently has reason to expect trouble.

Unscrewing the face plate exposes the large gear and pinion, but the teeth are on the inside and grease cannot be put in them. Thin oil placed on the periphery of the gear will work down and will run off the surfaces in contact in a short time. This state of affairs calls for the unscrewing of two bolts holding the gear and its bearings in the crank bracket. The master gear then can be pulled out and thoroughly greased. The rider may or may not get the gear in its original position; if he does not the performance of the mechanism will be unsatisfactory, correct adjustment being essential to quiet running. The two bolts having been tightened, the face plate and cranks are replaced, the nut on the left hand end of the crank axle is set up hard, and a nut regulating the position of the sleeve containing the crank bearings is turned until it bears firmly against the crank bracket on the left side.

All this requires time, strength, skill and patience, and the rider who is not an enthusiast naturally does not take pleasure in lubricating the master gear and pinion. The result is that he rides the machine with dry gears or takes it to the repair shop. The latter course is preferable, but is not always adopted, and the rider wonders why no one thought of making it possible to oil the gears properly without pulling the bicycle to pieces.

The 1901 models may be provided with screw caps on the under side of the bracket, the holes being directly over the gear teeth. The gears, therefore, will be accessible to any one who knows enough to use a screw-driver or small wrench, and can be lubricated

as often as desired in three or four minutes.

In the 1900 machine it is comparatively easy to get at the rear gears by taking out three long screws and spreading the dust caps apart. A screw cap, however, calls for less labor, and can be applied as easily on the under side of the rear casing as on the crank bracket, and it will be strange if the designers confine their attention only to the problem of making the master gear accessible by a few turns of the wrist.

In 1899 the diameter of the tubing was an inch and a quarter. The craze for large tubing subsided in 1900, when the diameter was reduced to an inch and one-eighth. Next year it will not be surprising if inch tubing should be used. This will give the machines a less cumbersome look and will not weaken the frames.

Fork crowns will not be materially changed; heavier tubing may be employed for the fork sides, not because of failures in 1900, but to give assurance of liberal margin of strength. The handlebar stem also will be reduced in diameter to correspond with inch tubing. The hubs and spokes of 1900 have given excellent service, and call for no change. Next year the rounded heads of spokes will be held in recesses in hubs, as in 1900. It will be difficult to devise anything neater or stronger.

The drop of the 1900 crank bracket, 2½ inches, has been generally satisfactory, being neither extremely high nor abnormally low. There is opportunity for shortening the distance between the crank bracket and the rear hub, and it may not be overlooked. This change will bring the rider over the work without setting the saddle so far forward on the post.

There may be changes in the construction of some of the parts, including the crank hanger, but these concern the manufacturer, and as they are not in evidence in the daily use of the machine, being covered by enamel or nickel, purchasers will be less interested in them than in the other features noted.

"Derned if it Doesn't Light Right Off."

Uncle Josh discovers the second good point in the

Columbia Automatic GAS LAMP.

Will fit BICYCLES, BUGGIES or MOTOR VEHICLES.

We know it embodies all best features of all lamps and no bad features of any.

It lights at once.

Turns down or out at once.

Requires one-third the carbide necessary in a large lamp.

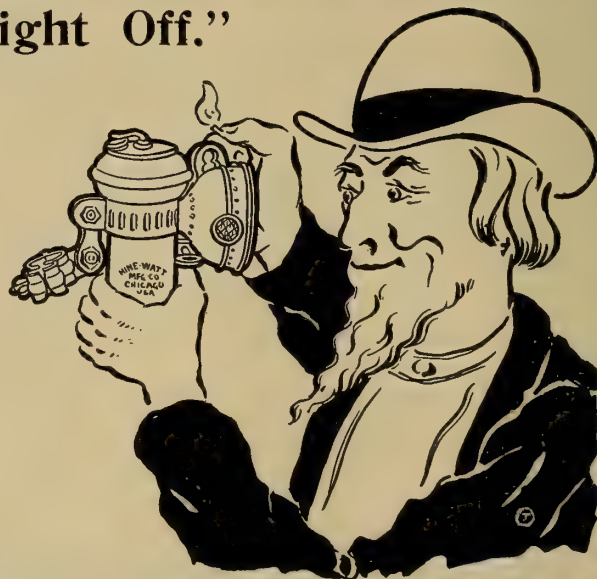
Water feed takes care of itself.

As good a headlight as the large lamps.

Nothing to get out of order, so not like the large lamps.

Supplied with special dash bracket.

Dealers demand it, so order cuts for your catalogue.



HINE-WATT MFG. CO., 14-16 N. Canal St., Chicago.

ENGLISH ECCENTRICITY

Learned Councillors Curtail the Motocycle in Queer and Amazing Fashion.

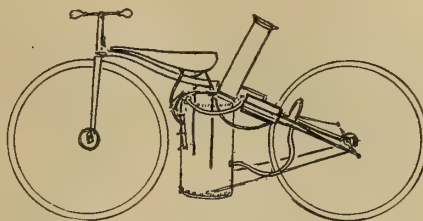
London, Nov. 6.—According to the latest ideas of one of the principal county councils in England—namely, that of Middlesex—the rights of motorists are to be very much curtailed. In fact, if the proposals passed at the last meeting meet with the sanction of the Parliamentary authorities—and I think it likely that they will—it will be practically useless to attempt to employ motors in that county for either business or pleasure. The conditions to be imposed are that, instead of a speed limit of twelve miles an hour, ten shall be the maximum, and that only when on a clear road, without a turn and without side lanes running into it. Providing that there be a turn or a side road, then the speed is not to exceed six miles an hour within a distance of one hundred yards from the said turn. Further, the speed shall not exceed six miles an hour when the motor is within a hundred yards of a horse. It is worthy of note that one or two Councillors disagreed, and thought the matter might be left alone, but they were overruled. These regulations will apply to motorcycles as well as to cars, and, in fact, they are aimed largely at the motocyclist. The reason advanced against those gentlemen who opposed the restrictions and who pointed out that the motor was the coming road carriage was that the motorcycle did no good and was only a pleasure conveyance. The speed at which the said cycles travel, it was also pointed out, is greatly in excess of that attained by the average car. Therefore it would seem that the high powered motor tricycles have brought about these unpleasant restrictions, which, if they become law, will do a very great amount of damage to the industry.

A good many motocyclists appear to be troubled with the question of dry or wet batteries. Lately I have seen several machines on which the dry batteries have been removed and wet accumulators employed in their place. Personally, I cannot see where the gain comes in, because I know that accumulators are a great bother upon larger cars, and are not in it with a really good magneto arrangement. But a good deal of trouble with motorcycles does arise owing to the failure of the contact breaker, and I cannot help thinking that something a great deal better might be employed. Why not, for example, make a direct contact switch, such as is commonly used on cars? At present the contact breaker of a motorcycle requires constant attention, and I have had to readjust one sample as many times as six in an ordinary day's ride. A friend of mine is now experimenting with a plain spring in place of the platinum point, using only platinum on the adjusting screw. The result, he tells me, is more satisfactory and readjustment is rarely needed.

Two Recently Discovered Motorcycles.

It has been made plain by the Automobile Show that the date hitherto assigned to the first motor-driven bicycle must be set forward a considerable period.

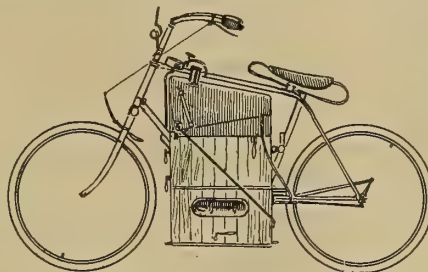
In the loan exhibition were two machines the existence of which does not appear to have been known outside of the immediate vicinity of their birth. One of these—the oldest—is not, strictly speaking, a bicycle at



AUSTIN STEAM VELOCIPED, 1868.

all. Yet the velocipede, or "boneshaker," although the predecessor of the high bicycle, and during the palmy days of the latter denied the right to pass as a bicycle, has quite as much right to be termed such as the later safety. Indeed, the latter was also denied the right to the name, and for a number of years was universally termed a "safety."

It is therefore a small stretch of courtesy to designate the Austin machine a bicycle. It has two nearly equal sized wheels, and was originally intended to be propelled by the pedals. Its owner, however, W. W. Austin, as early as 1868 decided to equip it with a steam motor, and appears to have turned out a practical vehicle. This was at Winthrop, just outside of Boston, and the machine, which weighed but ninety pounds, is



ROPER STEAM BICYCLE, 1896.

said to have been run a distance of 2,000 miles. The engine, fuel tank, etc., were attached to the frame just back of the rider.

The other machine shown is antedated by the Copeland Star bicycle turned out in 1884, the Pennington safety bicycle of ten years later, and others. It dates from 1896, and was a Columbia bicycle of the vintage of 1893 or 1894 made into a motor bicycle in 1896 by S. H. Roper, of Roxbury, also a Boston suburb. It weighed 150 pounds, and was also propelled by steam. It, too, appears to have been a practical vehicle, having been ridden a considerable distance.

FOR SALE.

A genuine DeDion-Bouton motor tricycle, with large, finely upholstered trailer for two people, and five new extra tires (French Clincher); machine in first-class condition. Price \$300.

E. J. EDMOND, Matteawan, N. Y.

MILWAUKEE'S VIEW

Why Trade has Fallen off and What the Future Holds.

Commenting on the decline of the bicycle industry in Milwaukee, Wis., and referring to the assertion that it is due to the fact that bicycle riding has ceased to be indulged in, the Wisconsin of that city takes a sensible view of the matter, and says:

In a comparatively short time Milwaukee is likely to become quite as much of a 'has been' in the manufacture of bicycles as some of her fastest riders are in the racing world. There was a time when Milwaukee cut quite as much of a figure in the bicycle trade as in the manufacture of beer, but that time is long syne.

In place of a score or more of big factories, employing thousands of workmen, the bicycle industry here has dwindled down to but two large factories and a cluster of smaller institutions where bicycles are assembled and not made, while it is doubtful whether the shops all told would enroll more than 800 or 900 men.

While bicycle racing has fallen in the estimation of the public, the bicycle is just as useful and just as enjoyable as it ever was, and even more so, to those who regard and use it rationally. While, of course, there are a few persons who rode bicycles simply because they considered it the proper thing to do, and who have stopped when what they considered a fad had passed, there are more people riding to-day than ever before. Then there are a number who rode the bicycle for exercise, but who now take their exercise at golf, but when the factories and the shops begin to discharge their thousands of toilers most of them ride bicycles; although the collection of wheels is a motley one, some of the models running as far back as the old cushion-tire wheel.

Herein lies the secret. In the heyday of the trade there was not an enthusiast who was content until he had gotten rid of his old wheel and mounted the latest model. The old wheel, taken in part payment, was stored away in the basement. It was just as serviceable as ever, but it wasn't the latest model, that was all. But the riders that used to buy a new wheel every year, and two or three of them if they were infected with the racing fever, now ride their old wheels. Models change so little and have changed so little in the last four or five years that there is no longer the supposed odium connected with riding a last year's wheel that formerly drove so many persons to buy a new one each year.

Then, beyond all this, warehouses, garrets and basements have been ransacked and all of the old, second-hand wheels have been brought out and sold at a low figure. If there were as many new sales as there were sales of old and second-hand bicycles the last two years, the trade would be flourishing just as much as it ever did.

CHANCE FOR AMERICANS

Fancied Security of French Motorcycle Makers Affords the Opportunity.

Paris, Oct. 30.—French makers have so long enjoyed a monopoly of the world's trade in motorcycles that one might be disposed to think that they would not have got such a universal reputation unless their machines were perfect. Among foreign buyers nothing is deemed good enough unless it be of genuine French manufacture, and agents are careful to impress this fact upon buyers.

Makers here have, of course, a much longer and wider experience in the construction of motors than their foreign competitors, and they have as a rule much greater facilities for turning out machines. They have created and trained up a new class of workmen, who have become wonderfully skilful in the manufacture of light mechanism of this kind. They have thus everything to enable them to maintain their supremacy over makers abroad, most of whom are still grappling with the problem of getting a sufficient supply of skilled labor, and it will probably take them some years before they can compete with the French on equal terms. Possessed of these facilities, it is not surprising that makers in this country should be capable of turning out light motors in such quantities and at such low price as to place them for the moment out of all danger of competition from abroad.

In a previous letter I pointed out that despite these facilities, and probably because of them, the motorcycle is far from perfect. I will even go further and say it is a crude machine. It is merely a motor attached to a tricycle or bicycle, without any reference as to whether these forms are the most suitable for a definite type of motorcycle. The big demand for them has not encouraged manufacturers to make any radical departure from existing types, because they have had to lay down such extensive and costly plants to turn out motors in sufficient numbers that any great change in design would necessitate a modification of the plants, which makers are anxious to avoid as much as possible.

Again, with possibly one exception, there are probably no makers of motorcycles, by which I mean no one manufactures the complete motor and machine. The motors are constructed by one firm, who obtain their cycles under contract from another manufacturer. Thus the firm which builds the motors does not have the opportunity of studying the cycle as a motor machine, and the cycle maker fulfils his contract by supplying the required number constructed to orthodox patterns without troubling himself to suggest whether better results could be obtained by modifying the type. The motors are

good and are as light as it is possible to make them, and the machine is also frequently built light, to such an extent, indeed, that breakages of axles are of rather common occurrence.

A really satisfactory motorcycle can only be evolved from manufacturers of motors who construct their own machines. They should have a sound experience of both branches of industry, and be able to combine them so as to produce a motorcycle which will be something more than a motor and cycle. In a general way the cycle maker who enters the trade and studies the motor will get a better result than the firm which builds the motors and buys the machines. He will find that there is no industry which offers a greater scope for intelligent enterprise and inventive ingenuity than the construction of motorcycles, for there is certainly no branch of manufacture which is capable of a bigger development. Though it is customary to say all sorts of nice things about the motorcycle, so as not to run the risk of throwing cold water on the movement, it is yet better to deal with the situation exactly as it is, without making out that as the public are buying the machines they are perfectly satisfied with them. If you look at the class of buyers you will find that they are mostly young men, who possess the means for purchasing a motor tricycle and can put up with the vibration, which becomes very trying to some people during a long run. This is not the class that should be catered to.

The maker who aims at extending his trade should try to produce a machine which will give satisfaction to the middle aged man who is beginning to find that he is less able than of yore to stand the physical exertion of long distance cycling, and is yet very loth to give up his rides. It goes without saying that the bicycle should not sink its individuality into the voiturette, as is the tendency at the present moment, since it must continue to have the privileges of the bicycle and be taxed on a low basis and be carried on the railroads as personal luggage. Still more important is it that there should be little expense in storage. To reach this class the motorcycle should have no objectionable features, and should be simple and as free as possible from vibration, while it must be sold at a reasonable figure. If the middle aged man will buy such a machine it will suit everybody.

And this brings me to another phase of the question. If the motorcycle could be brought within reach of everybody there would be such a demand in this country that it is a question whether French manufacturers would ever be able to supply it. The French have developed quite a passion for touring, but as they do not care for sustained exertion they are going in strongly for mechanical locomotion, and in this they are favored by the splendid roads and good accommodation that is provided them all

over the country. We have thus a market for motorcycles which may be said to be almost unlimited. It is one well worth being studied by American firms which are embarking on the new industry, and are able to produce machines of a more practical type than those being turned out in this country. They ought to be able to do for the motorcycle what they have done for the bicycle, and by satisfying themselves with small profits upon a big output sell the machines under conditions that will place them within reach of all. It is desirable that the motors should be standardized and exchange parts kept in stores all over the country. If the motorcyclist can go on a tour with the certainty of having repairs carried out anywhere the popularity of the machine will grow enormously. At present if anything goes wrong he has to make for the nearest railway station.

When the motorcycle first came out it was supposed that its utility lay specially in pacing on the cycle tracks. For a time they were employed to such an extent for this purpose that the race did not go to the best man, but to the one having the largest number of patrol tandems. Thus all the long distance races were won by Frenchmen, paid by firms who were able to supply them with good pacing tandems, and the Americans who came here found themselves enormously handicapped in races which were practically won by motor machines. Not satisfied with this, the pacers fixed big petrol tanks and other impedimenta behind the tandem for sheltering the rider, who was thus entirely protected from air resistance. The abuse became so great that the Union Velocipédique de France has been obliged to put a limit on the size of the tanks, and in future no motor machine will be allowed on the track unless it can pass between two posts set about three feet apart.

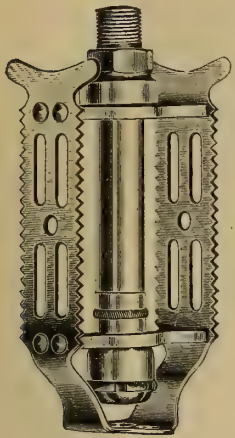
For the Rider's Divertisement.

Another musical attachment for bicycles has been invented, this time by a Chicago man, Samuel Goss by name. It is designed for the purpose of furnishing music for the rider of the wheel and his companions, in order to break the monotony and give divertisement during long and tedious runs.

The mechanism, which is quite simple, is mounted on an iron frame made to fit into that of the machine. On this frame are stretched piano wires, while on the cross-piece are some small hammers, operated by pins on the cylinder and made to strike the wires. The cylinder is rotated by worm gears at its left hand end, and driven from the crank shaft by a cord and pulley.

The inventor has foreseen the case when the riders should tire of the music by providing a small lever for throwing out the gears, and thus stopping the cylinder. The tune may be varied by putting in new cylinders, and the time of any air may be quickened by increasing the speed of the wheel.

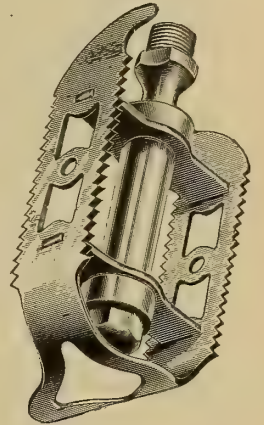
HOW TO TELL A HIGH GRADE BICYCLE.



Of course, you can't tell what is under the enamel, but the equipment rarely fails to tell the tale. Any maker who pinches pennies out of the equipment will pinch it out of the material that is covered by the enamel. If this suggests anything to you,

**Ask Yourself Why Curtis Pedals
are Never Found on Cheap Bicycles.**

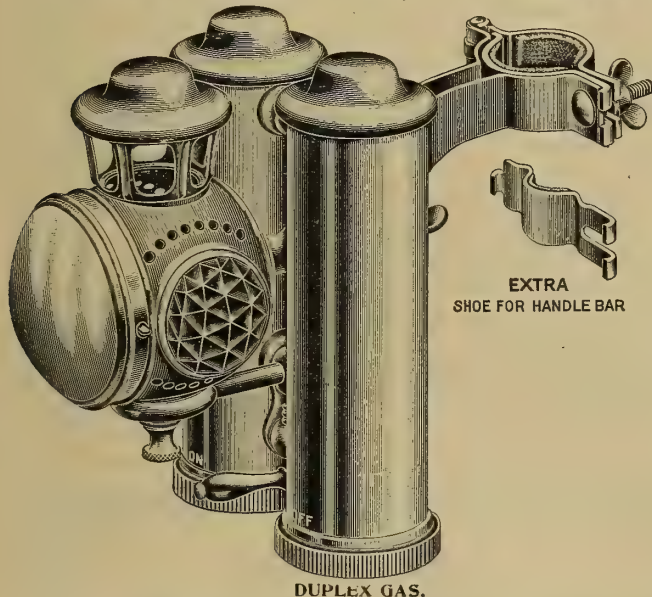
THE CURTIS PEDAL IS AN UNFAILING INDEX
TO THE HIGH GRADE WHEEL.



REED & CURTIS MACHINE SCREW CO.,

WORCESTER, MASS.

WINNERS IN A BIG FIELD, of the "FREE FOR ALL" FOR 1900.



DUPLUX GAS.

Distancing all competition, and winning out easily under a pull, without even being paced by an "ad."

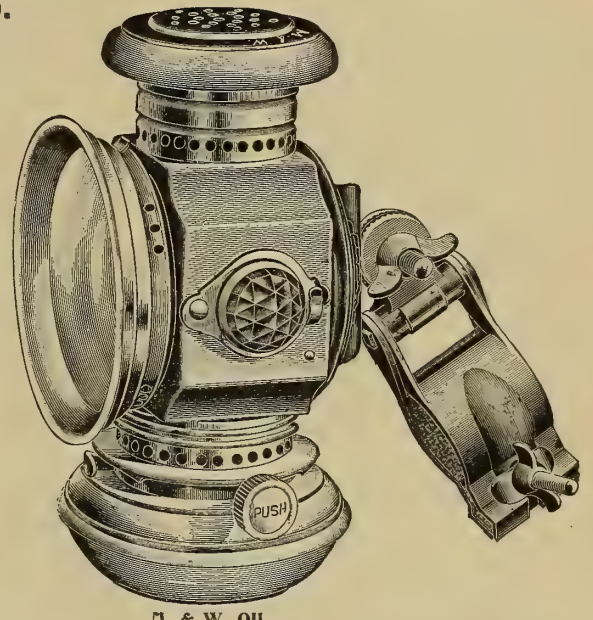
Th's famous, well-matched pair, now fully seen, will be pushed to

**BREAK ALL RECORDS
DURING 1901.**

THE
**MATTHEWS & WILLARD
MFG. CO.,**
WATERBURY, CONN.

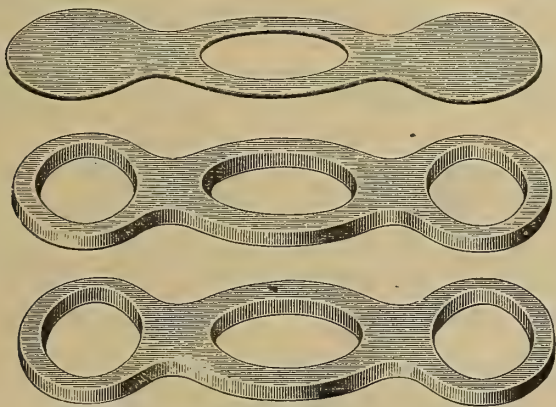
New York Office
40 Murray St.

Illustrated catalogue free.



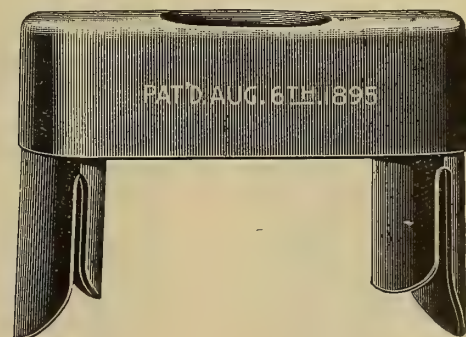
M. & W. OIL.

PLATE CROWN No. 2000.



Made for 1 in. center and 7-8 in. sides. 2 in. between sides.
Will furnish plates separately for building 3-plate crowns.

BOX CROWN No. 2004.



Made for 1 in. or 1 1/16 in. center and 1 in. sides. 2 in. between sides.
Fully reinforced in body of crown, also in fork sides.

SEND FOR CATALOGUE OF 1901 PARTS.

THE H. A. MATTHEWS MFG. CO., SEYMOUR, CONN

Two Weeks' Exports.

Exports of bicycles and cycle material from the Port of New York for the week ending November 6, 1900:

Argentina Republic—8 cases bicycle material, \$205.

Amsterdam—1 case bicycles, \$101.

Antwerp—3 cases bicycle material, \$220.

Brazil—10 cases bicycles, \$300; 1 case bicycle material, \$15.

Berlin—1 case bicycles, \$35; 2 cases bicycle material, \$34.

British West Indies—9 cases bicycles, \$290; 5 cases bicycle material, \$84.

British Guiana—3 cases bicycles, \$45; 2 cases bicycle material, \$100.

Cuba—5 cases bicycle material, \$20.

Cairo—5 cases bicycle material, \$42.

Dutch East Indies—1 case bicycles, \$43.

Glasgow—1 case bicycles, \$35.

Genoa—3 cases bicycles, \$110; 32 cases bicycle material, \$1,922.

Havre—3 cases bicycles, \$100; 6 cases bicycle material, \$239.

Hamburg—21 cases bicycles, \$420; 46 cases bicycle material, \$1,273.

London—334 cases bicycles, \$3,385; 26 cases bicycle material, \$1,144.

Liverpool—2 cases bicycles, \$125.

Mexico—3 cases bicycles, \$108.

New Zealand—1 case bicycle material, \$120.

Porto Rico—1 case bicycles, \$50; 2 cases bicycle material, \$35.

Rotterdam—11 cases bicycle material, \$615.

Southampton—1 case bicycles, \$25.

St. Petersburg—1 case bicycle material, \$40.

Exports of bicycles and cycle material from the port of New York for the week ending November 13, 1900:

Antwerp—2 cases bicycles, \$170.

Alexandria—20 cases bicycles, \$490.

British Guiana—19 cases bicycles, \$550; 5 cases bicycle material, \$145.

British West Indies—31 cases bicycles, \$627; 3 cases bicycle material, \$350.

British Australia—236 cases bicycles, \$4,954.

Bremen—7 cases bicycles, \$180; 9 cases bicycle material, \$371.

British Possessions in Africa—71 cases bicycles, \$4,431; 10 cases bicycle material, \$235.

Cuba—2 cases bicycles, \$75; 1 case bicycle material, \$15.

Cairo—20 cases bicycle material, \$1,221.

Central America—2 cases bicycle material, \$26.

Dutch Guiana—25 cases bicycles, \$734; 1 case bicycle material, \$36.

Dutch West Indies—1 case bicycles, \$23.

Glasgow—5 cases bicycles, \$150.

Hamburg—98 cases bicycles, \$3,540; 21 cases bicycle material, \$1,040.

London—5 cases bicycles, \$181; 11 cases bicycle material, \$365.

Liverpool—4 cases bicycles, \$125.

Malta—2 cases bicycles, \$149.

New Zealand—208 cases bicycles, \$6,395; 19 cases bicycle material, \$892.

Peru—2 cases bicycles, \$40.

San Domingo—1 case bicycle material, \$57.

Southampton—13 cases bicycle material, \$342.

Smyrna—2 cases bicycles, \$50.

Trieste—1 case bicycles, \$15.

The Same yet Different.

The 20th Century Mfg. Co., which recently acquired the Electro lamp, will market the article under its old name, but for divers reasons it will be handled by a wheel within the wheel, so to speak; that is to say, the 20th Century Co. will market the 20th Century lamp, while the Electro will be pushed by the Acetylene Lamp Co. at the 20th Century address, 17 Warren street, New York. Both lamps have been improved wherever improvement was possible, which was in minor details only.

Forty Four in the Hour.

Demester has displaced Beconnais as holder of the hour motorcycle record. On October 24, on the Parc des Princes track, Paris, he covered 44 miles 499 yards in the sixty minutes, riding the last four laps on a flat tire. Beconnais's record was 43 miles 185 yards. Demester, of course, rode a high power tricycle.

The Retail Record.**CHANGES.**

Scotland, S. D.—J. P. Serr succeeds Engel & Serr.

Vassar, Mich.—Ralph W. Cross succeeds Cross Bros.

Washington street; store is being renovated and improved.

Colfax, Wash.—A. C. Warner succeeds Howard & Lacey.

Versailles, O.—Manier & Pequignot succeed Manier Bros.

Rockford, Ill.—R. Reynolds succeeds Forbes & Reynolds.

Knoxville, Iowa—Fred. Brackney has added repair shop.

Cortland, N. Y.—Frank S. Bliven, succeeds Kennedy Brothers.

Des Moines, Ia.—T. E. McGavran succeeds McGavran & Weston.

St. Johnsbury, Vt.—W. W. S. Browne, removed to the Hastings store.

Atlantic Highlands, N. J.—W. P. Irwin, discontinued bicycle department.

Omaha, Neb.—National Cycle Company, sold out to Omaha Cycle Company.

Ipswich, Mass.—E. E. Currier, South Main street, is having an addition erected.

Haverhill, Mass.—George H. Durgin, Madison, Me.—James Felker, closed.

Bayshore, N. Y.—Bayshore Bicycle Manufacturing Company has made additions.

Fairfield, Me.—Clarence Weymouth, closed.

Owego, N. Y.—E. H. Strong, No. 208 Front street, succeeds Strong Brothers.

FIRES.

Little Falls, N. Y.—F. H. Brown; loss, \$400.

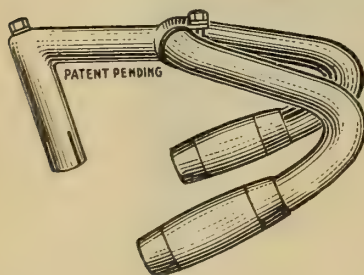
NEW STORES.

Port Jervis, N. Y.—P. C. Rutan, No. 46 Front street.

Recent Incorporation.

Cleveland, Ohio—Cleveland Distributing Company, with \$20,000 capital; to deal in bicycle and automobile parts. Corporators—Fred. Eberhard, R. J. Noderer, Alfred Hill, Rudolf Schimmelpfening and Nellie Hall Noderer.

Suit has been brought by the Great Western Manufacturing Company, of La Porte, Ind., against the Columbus Bicycle and Typewriter Company to recover \$282.15, claimed to be due on a contract.



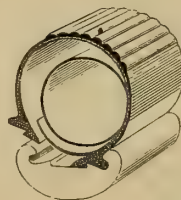
IDEAL HANDLE BARS

FOR THE COMING SEASON

will be made with forward extension $2\frac{1}{2}$ and $3\frac{1}{2}$ in. forward throw, and also with the Copeland patent stem, which gives it a 1 in. forward or backward throw. Stem made of one-piece forging, and bar made of best seamless tube. Our prices are so low this season you cannot afford to use inferior goods. Get sample and quotation.

We Guarantee our Bars to be the best finished Bars on the market.

Sole Manufacturers, IDEAL PLATING CO., No. 3 APPLETON STREET, BOSTON, MASS.



A TIRE THAT HELPS TO SELL THE WHEEL

BECAUSE

It is DETACHABLE, and therefore easy to repair.

It is handsome in appearance.

It is of the highest grade.

G. & J. TIRE CO.,

INDIANAPOLIS.

Pennell's Opinion of Motor Bicycles.

"After abandoning my Werner bicycle I purchased a quadricycle, and my experiences were even more, if possible, discouraging," says Joseph Pennell, whose European tour on a motor bicycle was recently described in the *Bicycling World*. "Briefly, it had no speed, and wouldn't climb hills, and if anything went wrong with it I was forced to tow or haul it to the nearest station on the railway. I therefore purchased a second Werner motor bicycle. My experience with three and four wheel motors no doubt aided me, and with the second bicycle I have really had no troubles—that is, not from defects in the motor—at all. I have ridden the machine from Paris to Lausanne in about twenty-four hours' riding time, climbing everything on the way.

"I had one bad fall on half-dry, greasy mud, just the sort of mud on which an ordinary cycle slips, and since, I never attempt to drive the machine on half-dry roads; I pedal it in the ordinary fashion. From Lausanne I rode to Brieg, one day, climbing everything; Brieg to Hospenthal, over the Furka, climbing all but the zigzags on the pass, in about six hours; thence to the top of the St. Gothard, rode up. I broke the switch handle and had to walk mostly down to Goeschenen; then to Kussnacht I rode, but here the machine became unmanageable, owing to failure of the switch, and as my time was limited I returned by train to Paris. Machine was carried for seven francs. The switch was repaired in an hour, and I rode from Paris to London in thirteen hours. This was the most successful part of the trip, and the fastest time was made up to thirty miles an hour on several occasions. Over most of the route mine was the first motor bicycle.

"I have since ridden in the Lake country

in very bad weather, crossing Shap Fell with difficulty, Denmail Rise with ease, and failing on Kirkstone Pass owing to wind and rain and the smashing of a brake. I now say that I am perfectly delighted with the machine, in which several improvements have been made since the spring, notably, the fitting of an air inlet tap to reduce the speed in traffic.

"I have not suffered from vibration in the least. This is owing to the fact that the motor is not under or behind the driver, as in tricycles and quads, but over the front wheel. The machine does slip in half-dry mud, and should only be pedalled through it. The pedals are too near the ground, and the bottom bracket bearings are not strong enough. The carburettor should be fitted with a float, as you have no means of telling how much petrol is in it. And, most important of all, you should be able to start the motor before mounting the machine. But, despite these defects of construction, I have never enjoyed a tour so much as my recent one in France and Switzerland. And I am sure that in a very few years all bicycles will be fitted with motors, for with an auxiliary motor hills become plains, and head winds no longer blow. But, on the other hand, the motor bicycle takes a lot of time to learn, knowledge to keep in order, skill to drive, and a cool head to control at thirty miles an hour. But it is in every way superior to a motor tricycle or quadricycle."

Shipping to Tropical Countries.

For packing steel, iron or nickel plated goods for shipment to tropical countries an authority says nothing is so good as cases made of baywood or other absorbant timber which has been coated with hot paraffin wax.



ALL
SORTS of BELLS
for
ALL
SORTS of PEOPLE

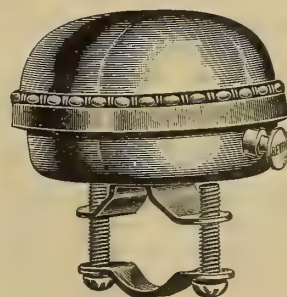
And
THE FACT
that we've been making bells for
58 YEARS

and have
a reputation to maintain,
assures

GOOD GOODS
AT THE
RIGHT PRICES.

Write for them.

BEVIN BROS. MFG. CO.,
East Hampton, Conn.
(Business founded 1832.)



THE CUSHION FRAME READ

What others can do YOU can do.

HYGIENIC WHEEL CO.,
220 Broadway, New York.

Detroit, Mich., Oct. 15th, 1900.

GENTLEMEN:—

I have sold at **RETAIL HERE** in **DETROIT** during the **past season** UPWARDS of **THREE HUNDRED CUSHION FRAME BICYCLES**. Never before in my fifteen years experience as a bicycle dealer have I handled goods that have appealed more quickly to public fancy nor have proven more permanently satisfactory than **Cushion Frame** bicycles. In my opinion the **Cushion Frame** is the greatest practical invention in the make-up of a bicycle since the advent of the pneumatic tire. **IT IS DOING MORE TO POPULARIZE CYCLING** than any other modern improvement. I **FIRMLY BELIEVE** that the **STANDARD WHEEL OF THE FUTURE** will be the **CUSHION FRAME**.

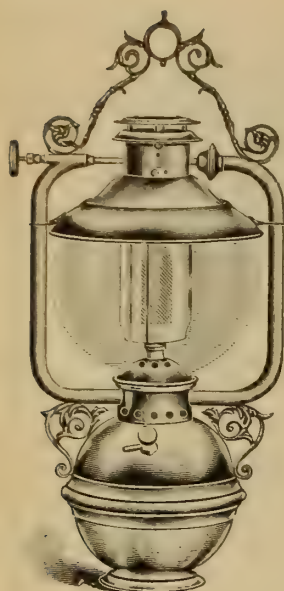
Very sincerely yours,

WM. E. METZGER.

Mr. Metzger has sold all the **Cushion Frame** bicycles above noted at prices ranging from **\$50.00 to \$80.00**. Don't you think there is money in handling **Cushion Frame** models?

Write your manufacturers about them.

NOTE:—Cushions are attached only to HIGH GRADE BICYCLES.



Outdoor.

THE NULITE

750 CANDLE POWER

ARC ILLUMINATORS

Produce the finest artificial light in the world
SUPERIOR TO ELECTRICITY OR GAS
CHEAPER THAN KEROSENE OIL

20th Century Revolution in the Art of Lighting.

They darkness into daylight turn,
And air instead of money burn.

No Smoke. No Odor. No Noise. Absolutely Safe.
They are portable. Hang them anywhere.

WE ALSO MANUFACTURE

TABLE LAMPS PENDANTS WALL LAMPS
CHANDELIERS, STREET LAMPS, ETC.

The BEST and only successful

Incandescent Vapor Gas Lamps

made. They sell at sight. Nothing like them.

A SNAP FOR BICYCLE DEALERS.

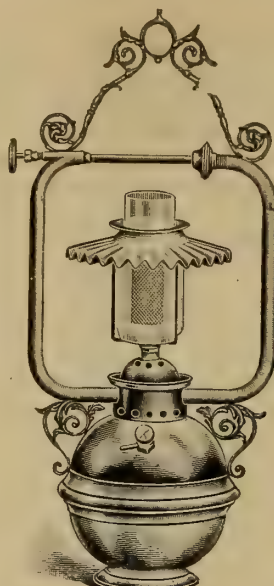
Agents wanted everywhere.

Write for catalogue and prices.

CHICAGO SOLAR LIGHT CO.,

56 FIFTH AVE.,

CHICAGO, ILL.



Indoor.



HERE IT IS!

The Melvin
Automatic
Coaster
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A Health Resort.

Excelsior Springs, Mo., on the Kansas City line of the Chicago, Milwaukee & St. Paul Railway, has become one of the leading all-the-year-around health and pleasure resorts in the United States. The use of its waters has benefited a great many sufferers.

The Chicago, Milwaukee & St. Paul Railway has just issued a finely illustrated booklet, describing the resort and telling of its advantages, which will be sent free on application to Geo. H. Heafford, General Passenger Agent, Chicago, with two-cent stamp inclosed for postage.

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Valves, Name-plates, etc.

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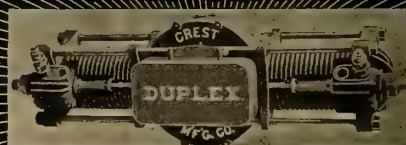
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Or to our agents, E. A. Brecher & Co., 95 Reade St., New York; Geo. N. Greiss, 2128 N. Second St., Philadelphia, Pa.; W. P. Weaver, 516 State St., New Haven, Conn.
You can see us during the Automobile Show in Madison Square Garden, New York city, in Space No. 7.

CREST INDESTRUCTIBLE SPARKING PLUGS,
Guaranteed. Price \$2.00.

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CAMBRIDGEPORT, MASS.



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FOR
TRICYCLES AND
AUTOMOBILES.

THREE, FOUR AND FIVE HORSE-POWER MOTORS.
Immediate Delivery.

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

Used for Business.

One thing relating to the use of the bicycle has particularly impressed an Englishman, B. N. Chesley, the agent of a London syndicate, who is temporarily residing in Washington, D. C.

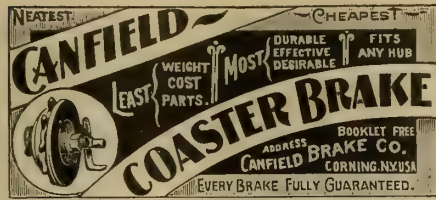
"I have noticed," he is quoted as saying, "since I have been in this country that the bicycle is with you simply a time saving device, and has really developed into a rapid means of transportation from one point to another. In England, and, in fact, in all Europe, the bicycle is more generally used for pleasure.

"This, however, may be due to the fact that your cities are better fitted for their use than those of England, but our country roads are vastly superior to any I have seen here."

Accommodating Department Stores.

Department stores in St. Paul and Minneapolis provide bicycle stands, with a boy in attendance, who checks wheels free, whether the rider intends to visit that particular store or not. Indeed, a bicycle may be so housed all day.

A good season is anticipated by the Warwick Cycle Company, of Springfield, Mass., and preparations are being made at the factory to take advantage of it.



SARTUS BALL RETAINER (The Original)

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Everyone Giving Satisfactory
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YOU CAN'T TELL THE AGE OF A BICYCLE

by the teeth of its sprocket but you can tell its quality by the chain that runs over them.

If it's a Duckworth



you may be sure that the makers of the bicycle are not building on the Cheap John plan. If the bicycles you handle are not fitted with Duckworths, specify that chain when you order. If it is refused you, you will have a certain cue to the quality of the wheel.

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THE AUTOMOBILE AUTHORITY OF AMERICA

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Due Albany	4.10 P.M.	7.35 "
" Syracuse	7.55 "	11.40 "
" Rochester	9.40 "	1.30 "
" Buffalo	11.40 "	
" Toledo	5.55 A.M.	
" Detroit		8.15 "
" Chicago	11.50 "	4.00 P.M.

The Finest Pullman Cars will be run on these trains.
Tickets and accommodations in sleeping cars for sale at City
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OF ALL KINDS ON
BICYCLES AND AUTOMOBILES.
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Buffet-library-smoking cars, sleeping cars,
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The Bicycling World

ANL MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., November 22, 1900.

No. 8.

JOHNSONS HERE

New Models Put in an Appearance—Long Cranks Featured—The Prices.

Botanically speaking, the Iver Johnson plant was the first of the more conspicuous cycle plants to throw out its new blossoms in the metropolis.

Speaking the bicycle language, the Iver Johnson models for 1901 made their appearance in New York at the Iver Johnson branch, 99 Chambers street, on Monday last. They were preceded a day or two by their prices and followed to New York by the head of the Iver Johnson establishment, Fred I. Johnson.

When the Bicycle World man called, Mr. Johnson was admiringly contemplating the wheels before him.

"What do you think of them?" he asked, and then added satisfiedly, "It's a fine line, isn't it?"

The fact was not denied; nor can it be. Each of the new models looks the thoroughbred.

The prices of the 1901 wheels are relatively the same as applied on this year's goods; they are as follows: Men's roadster, \$35; ladies' roadster, \$36; racer, \$45; road racer, \$45; special light roadster (8 inch cranks), \$45; cushion frame models, \$50.

The line also includes a model on which no list price is named; it gives the dealer latitude for an exercise of individual judgment and a weapon with which to meet competition when competition requires. The wheel bears the Johnson nameplate, is made of Shelby tubing, has Fisk guaranteed tires, Sager saddle, Indianapolis chain and is beautifully finished and looks full value at almost any price.

One former member of the Johnson family, the chainless, has been dropped by the way-side and its place taken by the special light roadster at \$45, which appears for the first time. This machine embodies the long crank, high gear idea that is attaining force in this country; it is fitted with 8 inch cranks and from 104 to 120 gear; the crank hanger has a two inch drop.

All of the models have been lightened considerably—from two to three pounds—and each bears evidence that Johnson's sly poke

in the direction of a twenty-second story on Park Row, "Not 1900 goods with 1901 prices," has something to back it up. The wheels have all been refined wherever possible. The most conspicuous alteration is the emplyment of a square fork crown instead of the oval one formerly used; drop forgings are used in the rear forkends and other places instead of stampings as heretofore, and with a general "touching up," high class equipment, which includes Hartford tires and a new nameplate, and a superb finish, if the wheels could hold up their red heads they could do so, and proudly, in any company.

About A. B. C. Prices.

It can be stated with every assurance of its absolute correctness that the American Bicycle Co. will make no substantial changes in its list prices. On all of the higher grades the same figures that prevailed this year will be continued for another twelve month. The price of all the leading chain wheels will be \$50.

New Jobbers in Buffalo.

Jos. Strauss & Son is the style of a new jobbing house which has just begun business at 694-696 Michigan street, Buffalo, N. Y. The members of the firm were formerly connected with Matthew Strauss and the Kelsey Co., in Buffalo, and are therefore no strangers to the business. They say they will not deal in job lots but only in up to date frames, fittings and supplies and will buy only for spot cash, thus enabling them to obtain and quote the most interesting prices. Their aim, they say, is to have the finest jobbing house between New York and Chicago.

Chainless Prices Set.

Those who expected a drop in the price of chainless bicycles will be disappointed.

As owners of the bevel gear patents, the American Bicycle Company this week set the prices of the 1901 chainless of that type and set them at the same figures that have prevailed during the current year, viz: \$75 for high grades, \$60 for medium grades.

In accordance with the terms of the license the bevel gear licensees were advised of the prices, which makes them public property.

CARTER QUILTS

Geneva Man Unexpectedly Retires from the A. B. C.—Economy the Cause.

J. A. Carter, who for several months past has been reckoned President Coleman's right hand man, will retire from the American Bicycle Co. on Dec. 1st.

The announcement was made only yesterday, and is not yet generally known, but when the news gets about it is certain to create a wave of surprise and comment.

While retirements were known to be on the A. B. C. slate, Carter's name was never supposed to be there, in fact, it was generally believed that he was slated for a higher titled office, a belief which was given color by his recent election to the presidency of the American Saddle Co., one of the spokes in the A. B. C. wheel. This position, however, he will also relinquish on the 1st proximo.

Before the combine Mr. Carter was president and general manager of the Geneva (Ohio) Cycle Co. When this concern was absorbed, he became a director in the A. B. C. and for some time was a chief factor in the practical reorganization of affairs; latterly he has been the head of that portion of the sales department which sold parts and fittings to outside makers and jobbers.

He is a large holder of A. B. C. securities which he will retain. He is also vice-president of the Geneva Tool Co. and interested in two other similar concerns, but he will continue to make his home in the East, and it is understood will shortly become identified with a new enterprise.

His retirement from the A. B. C., it is understood, was due to the policy of retrenchment which now dominates the establishment.

Success of Negotiations Probable.

Pending the annual meeting of the Canada Cycle and Motor Co., which takes place today, nothing of an authoritative nature can be said regarding the proposed consolidation of that concern with the National Cycle and Automobile Co. It is generally understood, however, that the deal will go through

OPPOSED BY CYCLISTS

Englishmen Develop a Queer Streak—Look to America for Cheap Motorcycles.

London, October 24.—One of the most astonishing things in connection with motors and motorcycles in this country is the fact that some of the most bitter opponents of the new form of locomotion are cyclists. The other day I was talking to a well-known artist who is an ardent cyclist on this very topic, and he told me that he was employing all the influence he could in support of a proposition which is shortly to be brought before the committee of the County Councils to limit the speed of all motor cars and motorcycles to ten miles an hour everywhere in the country and six miles an hour in towns. As a cyclist he felt sure that he could speak dispassionately and point out the drawbacks of speed. But further questioning elicited the fact that he had had a picture damaged while he was painting it by the dust thrown up by a passing motorcycle. This was apparently one reason for his enmity, but another may be found in the majority of cases, and is, in plain truth, the "green eyed monster," jealousy. The average cyclist, the well-to-do man of middle age, has taken to the cycle, and he now appreciates travelling upon the roads. But he is not sufficiently well off to afford a motor, so he hates the things on the principle that the grapes are sour. But while his hatred is unreasonable and absurd, it may have a very bad effect upon the motor movement, for he is fairly powerful, and his voice is listened to a good deal; in fact, the cyclist is no longer an outcast—that position is reserved for the motorist—but is a respectable member of Society, with a big S, and a personage whose opinion is worth having, especially if it be against anything new. He is respectable, and therefore strictly conservative; only men with a great deal of money or none at all can afford to be liberal in England!

It is clear that the quickest possible way to overcome the prejudice to which I have referred is by putting upon the market a cheap motorcycle. I fancy that, for the present at least, American manufacturers will find it better to send over tricycles in preference to the motor bicycles, which appear to be coming into favor in the States. Here there is a very distinct prejudice against two wheeled motors, a prejudice which I myself share to a certain extent. But we can very well do with some cheap and good motor tricycles, and no doubt there are many firms in America who can supply this want.

Two new forms of power transmission for motorcycles are promised at an early date, one hailing from Coventry, while the other is, I believe, an Irish invention. Both have the same main object, namely, to reduce the

noise which the toothed gearing, now always employed, produces. It seems to me, however, that it should be possible to construct a gear of the present type which should be practically noiseless, by employing some different material for the small pinion wheel. A good deal of the trouble also arises from improper adjustment, and in most machines it will be found that the wheels are either too closely in gear, and so do not run smoothly, or are too far apart, in which case they are liable to rattle unduly. One of the new gears is, I am told, a chain device, but it seems to me that this will not do when in connection with a motor which only obtains an impulse at every other revolution. What is to become of the slack of the chain—which must be allowed, unless a great loss of power is to result—when the latter is not actually driving? It may be said that the flywheel will overcome this difficulty, but I have grave doubts on the matter. However, it is not long now to the shows, but even then we shall only see the invention, and there is hardly likely to be any means of putting it to a practical test, which is what should be done before deciding either for or against the gearing.

Will Have Keatings Ready.

Receiver Betts, of the Keating Wheel and Automobile Company, will be in a position to market about three thousand Keating bicycles as soon as the sales season of 1901 opens. Since he has had charge of the business he has turned the parts, frames, etc., to the best advantage, and has already assembled and enamelled one lot of 1,200 wheels and is about to begin work on a second lot of 1,700 bicycles. It is expected that all of them will be marketed to the advantage of the creditors of the concern. A considerable number of men are now being employed at the factory, and their employment will continue for some time at least.

Down in Demerara.

Cycling is still growing in popularity out in Demerara, judging from a letter written by a cyclist resident there, and it is becoming more universal every day. The "free wheel" movement is not being taken up very much owing to the uniform flatness of the country, there not being a single hill on any of the public roads. The hills are all in the interior, where there are no roads to cycle on. Free wheeling has therefore to be done on the level. A tax is still in force on cycles, but the riders enjoy the privileges of universal lighting. The regulations apply to everything on wheels except prams, which are not supposed to be out very late!

Ignition Follows Escape.

A defective feed pipe allowed the gasoline from an engine at Cook's Machine Shop, Delaware, O., to escape and ignite last week. In consequence some \$3,000 worth of machinery, bicycles, etc., were destroyed. They were but partially insured.

TIPS TO TRAVELERS

Veteran at the Game Summarizes the Results of His Long Experience.

Here are a few of the many little things a traveller should do when sending orders to "the house," especially if he be a traveller on a commission basis:

Use a triplicate order book, send original to "the house," give customer the duplicate and retain the triplicate for future reference.

Number and date your orders.

Extreme caution in spelling names and having firm style correct is an important feature often overlooked, even by old and experienced men.

If you can't write clearly and plainly, a letterhead of the firm attached to order will greatly assist order clerks, and many times avoid mistakes in shipping.

Fill in the "terms," no matter what they may be.

Don't make verbal promises which your house cannot and will not fulfill, and if you do promise anything out of regular, write it on the order subject to approval, thus giving your house a chance to "turn it down" at once if not satisfactory to them, in which case they should send you copy of the letter written the customer.

Always give shipping instructions and routing if possible.

Learn all you can of prospective customer's responsibility, and give information to your house along with order.

Many a good dealer is "turned down" by the house because of insufficient "credit information"; particularly is thus true of an extremely cautious credit man, who thinks more of "getting his pay" than he does of selling goods.

A little information of the right sort will often aid the manager or the sales department in properly presenting the "new man" for "a line."

If a triplicating order book is not available, a couple of pieces of carbon inserted between sheets of buyer's stationery will give desired copies and good results.

Orders should be carefully made out and then checked over with buyer, and then signed by him, using firm style for signature, thus closing a deal in a manner which cannot fail to please "the house." There is no chance for a buyer to "flunk" on the ground that salesman agreed to this or that; there is no reasonable chance for a buyer to refuse payment as per terms. A buyer certainly cannot object to signing an order given a traveller, inasmuch as he must sign all orders and letters sent by mail.

Many dealers make a practice of allowing bills to run ten or fifteen days after discounting time, and then deducting discounts just the same, and if called down for it will say: "Your traveller said it would be all right," or some other excuse equally foolish.

Others will date checks back five or ten days, in hopes the factory will assume they were delayed in the mails. They often do "assume" such to be the case, if it doesn't happen too often, or if P. O. marks are blurred.

A traveler can save his house much annoyance and himself many dollars' worth of business by starting right with new customers.

He will enhance his value to his employer and increase his trade as well.

Travellers should avoid making terms or prices to one man they do not give another man under same conditions.

In these days of dealers' conventions it's dangerous.

Dealers often compare notes, and frequently turn a factory down for charging them more than others pay, and that, too, without giving a reason.

It may be and probably is all right for a traveler to judiciously "jolly" his man into thinking he is a specially favored customer; no really bad results can come from it if he treats all exactly alike.

The confidence of the trade is what all good salesmen want and work for, and there's but one way to get and keep the confidence of our modern business man, and that's by treating him fairly, frankly and honestly.

A good salesman can work up a bigger and better trade at more profitable prices by using a little caution, a little judgment and a good deal of "horse sense" in handling buyers than by "making prices and promises" which are unprofitable and undesirable to the house, causing friction between buyer and maker, creating distrust and shaking confidence of the buyer in both seller and maker, besides a feeling on the part of the house that either the traveler or the customer is "off."

The writer was for many years a "commercial pilgrim," and rarely in all the time he traveled did he send in an order which his house was not glad to fill, and which his customer was not glad to have filled. It was attention to these little things that made the dealers' trade desirable to the house, and the factory's line a satisfactory one to the dealer, thus cementing both and forming business relations lasting for years.

In after years, when in charge of a large selling force, he rarely had any trouble with customers where the fault did not lie with the dealer. This was due, no doubt, to the careful manner in which travelers were instructed. No matter how old and experienced a new man might be, he "got his instructions," but he got them in the form of "suggestions," and was requested to follow them, as a convenience to the sales department.

The result was a business of \$75,000 a year increased in six years to one of more than \$250,000, and then sold to a "combine," commonly called a trust; then run a year on red tape methods, and closed for want of business, or to follow a policy of "concentration."

J. ELMER PRATT.

WANAMAKER ON TRADING

**Greatest Curse of Bicycle Business, He Says
—His Buyer's Views of the Subject.**

With the motorcycle industry in its infancy—hardly even in that stage, in fact—the same problems which have perplexed the cycle trade from its inception give signs of coming to the front with a persistency that successfully resists all efforts to turn them aside.

For example, there is the trading system. With motorcycles hardly more than placed on the market, the question of trading-in is already being discussed; indeed, it has got beyond this point, and from being a problem of the future it has passed to one of the present.

As might have been expected, opinions differ widely regarding the question at issue, viz.—shall the policy of trading-in be inaugurated? Some hold that it should, pointing out that it is certain to be done anyhow, and defending the plan as one good in itself when conducted on the right principles. Others denounce the entire system of trading, and desire nothing better than to have it entirely excluded. This view is taken by J. F. Doll, buyer for Wanamaker's two establishments. In a conversation with the Bicycling World representative he said:

"The trading system was the greatest curse of the bicycle trade. To it are traceable most of the abuses for which the trade was notorious. It is hardly too much to say that the business was founded on this system, and that many of its subsequent tribulations were due to it.

"The question will soon come up—in fact, it is already up—whether this trading-in of second-hand machines shall be permitted to obtain a foothold in the motor business. If it does, nothing but harm can result. The greatest enemy of motor vehicles wishes nothing worse than this.

"When I say that the question has already come up I mean just what I say. We had a case of the kind only a short time ago, and we at once recognized its importance in the creation of a precedent. Upon the way it was handled depended much, as far as the future was concerned.

"One of our customers had purchased a motorcycle, and in the course of time he came to the conclusion that he wanted another type of machine and came to us to see if we would arrange a trade. After a talk with him, finding that he was in earnest, we said we would refer the matter to the manufacturers, and if they were willing to co-operate with us we would accede to his wishes. Otherwise we would have to decline to do so.

"We then wrote the manufacturers fully on the subject. We told them that we were utterly opposed to trading, and gave our reasons at length. We held that the system demoralized any trade which practised it extensively; that it imposed on wholesaler and retailer alike the burden of correcting mis-

takes or catering to whims of buyers; that it was wrong in principle and practice, and that the practice, once entered on, was certain to extend until it became almost unendurable. We added that we thought that here was a chance to establish a precedent and to deal a hard blow at the system before it had had time to assume formidable dimensions.

"In due course we received a reply which was highly satisfactory. The manufacturers took the same view of the matter as ourselves and refused to make any concession. I need scarcely add that this action was highly satisfactory to us.

"You will see, therefore, that we have taken our stand on the matter right at the beginning. We start right, and do not propose to recede from the position taken, no matter what others may do."

Reasonable Care Necessary.

In reversing a decision of a lower court the Appellate Division of the Fourth Department of the New-York State courts holds, in effect, that a bicycle rider should exercise reasonable care in riding on a road known to be dangerous; and, furthermore, that damages could not be recovered in case this reasonable care was not taken.

The case was that of Lillian Smith, who was injured while riding a bicycle along Main street, in the village of Henderson, Jefferson County, N. Y., in April, 1898, and recovered judgment for \$1,000 in her suit against the village for damages for personal injuries she received.

The street runs east and west along a hill sloping toward the south, having a carriageway 42 feet wide and a four-foot plank walk on either side. The plaintiff lost control of her bicycle while riding down the descent in the street of five and one-half feet in the hundred, and was carried across the carriageway and plank walk, down the embankment south of the street.

The Appellate Division of the Fourth Department has now reversed the judgment, holding, by Justice Laughlin, that the village was not required, in the exercise of reasonable care, to foresee that a woman familiar with the road and the land on either side, would thus lose control, and to guard against the possibility of the occurrence of such an accident by erecting a guard rail or barrier along the plank walk.

Yale Motor Bicycle in Prospect.

A Yale motor bicycle is a likely development of the near future. The Kirk Manufacturing Company, of Toledo, have interested themselves in the subject, and while they will not talk for publication, they do not deny that the motor bicycle bee is in their bonnet.

Keating Claims Committee.

Judge Elmer has appointed Judge D. Ward Northrop and Frank D. Haines a committee to hear claims against the Keating Wheel and Automobile Company, of Middletown, Conn.



A SATISFIED CUSTOMER . . IS AN ASSET IN ANY BUSINESS

We have worked continuously to have satisfied customers on our books. Whether they buy one or one thousand NATIONALS we want them satisfied.

We have succeeded, because our customers have satisfied themselves that NATIONAL bicycles are what is claimed for them, and that the treatment accorded to them is consistently fair and of a kind that makes friends. Our oldest customers are our best friends. Every year they sell more NATIONALS. Why? Because they like the wheel, and because their customers who have bought NATIONALS are in turn satisfied and help them.

If you have never handled NATIONALS, write for Chapter I of our "Talks." It will cost you nothing to find out what other dealers think of them. Give us the opportunity of showing you the 1901 line of NATIONALS. Our old customers say it's the best line we ever had.

NATIONAL CYCLE MFG. CO., BAY CITY, MICH.

National Bicycles are not made by a Trust.

High
Gear

Orient

TAILORED FOR 1901.

Long
Cranks

HIGH

gears and long cranks, which have taken the complete attention of the English cyclists the past season, while Americans have been bound up in coaster-brakes, are not to be ignored by the dealer who is after an easy sale through giving the rider an easy push. A

LOW

estimate of a high-gear bicycle, properly fitted to the rider, will show a saving of twenty miles of exertion ordinarily expended in a fifty-mile tour. But best results can only be obtained by measurement. And here comes the importance of fit. If

JACK

has 33 in. leg measure, he requires 8 in. crank and 104 gear. Each individual has individual requirements. That is why our new 1901 Model is called the Tailored Orient; why we furnish cranks from 7 inches up by 1-2 and 1-4 in. graduations; why this model is no more to be compared with the ordinary bicycle than is the tailored garment with the hand-me-down coat.

AND THE

dealer who proposes to keep awake this winter will readily realize that this glimpse of 1901 will be the means of getting him into the

GAME

six months in advance of competitors. Be an all-the-year-around dealer. There is a certain amount of business that can be done in winter weather with summer profit.

WALTHAM MFG. CO., WALTHAM, MASS.

THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
"The Wheel" and the "American Cyclist."

Published Every Thursday

By

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, NOVEMBER 22, 1900.

Before the American motorcycle has reached its toddling age word comes from both France and England that it is our developments and exportations that are wanted to awaken those countries in the matters of price and design. It shows that the American bicycle, in whatever form, does dominate the world.

Experimentation that is Folly.

In every part of this wide land there is ceaseless experiment in the matter of motorcycles, motor bicycles in particular. Every day brings increased and renewed evidence of the fact.

From this wide and diversified experiment much good will be evolved, but enough has already developed to make plain that a vast majority of the experimenters are making a common mistake—that of presuming that a bicycle as ordinarily constructed will serve the purpose. Most of the motor bicycles are merely bicycles to which a motor has been affixed in one position or another. Bicycles

built on this plan are already on the market, and disappointment that is as unnecessary as it is mischievous and far reaching is in plain sight.

We are not of those who believe that motorcycles should be held back until perfected for improvement, and perfection can only come with wide and practical experience. But in the detail to which we refer there is little or no excuse for shortsightedness.

Bicycles as now designed and constructed were never intended to bear the weight and incessant vibration of the motor where the weight and vibration are brought; so clear and logical is this that it is incomprehensible that the fact is not more generally recognized.

It is not enough to merely use heavier tubing, either. The joints and connections are even more vital, and it is there that weight and lengths and diameters and methods of brazing and fastening must be given attention.

It is the sheerest folly to simply devise a means of conveniently locating a motor on the present-day bicycle, and then expect the bicycle to stand up for any length of time. It will not do it, and any one who markets or purchases a motor bicycle in such belief is doomed to trouble, expense and disappointment, for which they themselves are to blame.

It is shortsightedness in this regard that will hurt and retard the new infant more than any other one thing.

What of the Assembler?

How has the assembler fared during the period of disaster and unrestricted gloom through which he has been passing?

This is a question frequently asked, and one in answer to which it is not easy to frame a reply which will fit. The difficulty of the question, however, only adds interest to the inquiry.

Has the assembler—meaning thereby the dealer or repairer who puts together a few machines during his dull season, to be retailed later—been practically driven from the field by the influx of low-priced machines, as has so frequently been predicted he would be?

Or has he held his own, finding in his relief from overhead expenses sufficient compensation for lowered list prices?

Different answers will be returned to these questions, depending largely on the dealer or repairer to whom they are put. But it seems reasonably plain that decreased prices

alone do not form a sufficient cause for the enforced retirement of any assembler.

There never was a time when he could buy his parts more cheaply or to better advantage in every way. The range of selection presented to him is as wide as could possibly be desired, and the parts themselves permit the assembler to individualize his product to his heart's content.

It is when we come to the labor cost that the key to the situation is reached. If this is calculated on the basis of showing a profit the result is scarcely likely to be satisfactory. But if all that is desired is to cover actual expenditures—if the process of manufacture is looked upon as a mere stop gap, to bridge over the dull season—there is every likelihood that expectations will be realized.

In short, the days of big profits are over, and all that any one—maker or assembler—can hope is to make a nominal profit per machine.

With this the dealer or repairer who may not turn out more than a dozen or two machines can be satisfied, for this is not his whole business.

No Stagnation Here.

It is already apparent, notwithstanding the unusually large number of manufacturers who have yet to make their announcements, that the reproach of unchanged patterns cannot truthfully be made of the next season's machines.

Indeed, sufficient evidence is already attainable to warrant the prediction that greater changes will be seen next season than for several years past.

All machines will not contain the same changes, nor will all the changes be admitted to be improvements. Some of them are mere changes of fashion—a return to styles which formerly prevailed. Others endeavor to fasten upon cycle construction features whose utility or advisability is questioned in some quarters.

But whether new or old, right or wrong, the changes have been made. They stand for something. Even if the sole purpose accomplished is to give notice that stagnation has not set in, the expenditure of effort is justified. Its effect will more than counterbalance the outlay.

It is too early to discuss these changes intelligently. The data available is not sufficient for this. Later announcements may alter the general impression now entertained of the trend of the new features, giving prominence to some now seemingly in the

background, or relegating to the rear others now in the front rank.

It is sufficient, therefore, to note that one-inch tubing and long cranks appear to hold the centre of the stage, and that cushion frames and chainless gears are making an equally pronounced bid for notice.

Nor can it escape notice that patterns multiply. Each maker shows a disposition to have models designed and priced differently. The soundness of this course is scarcely open to doubt.

Coaster brakes may seem to some observers to be little dwelt upon. This, however, is offset by the fact that there is a very general disposition to regard this device as almost if not quite standard on the regulation patterns.

Altogether, it is impossible to overlook the fact that new goods will be very much in evidence at the forthcoming bicycle show—new in design as well as by virtue of having just come through the factories.

It must be a strangely distorted vision that sees in this fact any cause for mourning.

Criticisms do not Hold Water.

There is every probability that criticisms of motor bicycles will continue to be made for some time to come.

Notwithstanding the convincing testimony to their thorough reliability borne by actual and widely extended, even although somewhat limited, use, the doubting Thomases are not satisfied. They are convinced that a machine of this character has certain inherent and ineradicable defects, and no amount of proof will, at the present time at least, convince them of the contrary.

Such machines must lack stability, they assert. They cannot handle well, the manipulation of the various levers is in itself a task sufficient for one man, the complex mechanism is certain to give trouble, and the machine, when completed, will be worse than useless. These are the stock arguments, and they are made to do double and quadruple duty.

The time will come, of course, when they will cease to be used; when they will even be forgotten. But at present they are living issues, and as such should be dealt with uncompromisingly.

The lack of stability urged against motor bicycles exists only in imagination. The same accusation has been made in regard to the ordinary bicycle; side slip was once held up to the cyclist as a living, ever present danger, fraught with terrible consequences.

Precautions were taken to prevent it. Non-slipping tires were for a while all the rage, and even they only made side slip less frequent. But to-day an overwhelming majority of tires have smooth treads, and side slip is rarely even mentioned.

Of course, no candid observer will deny that there is such a thing as side slip. Tires will slip, given the proper conditions of road, and only extra precautions will prevent it when these conditions exist. The greater the recklessness the more serious will be the consequences should such a slip take place.

It is precisely the same with the motor cycle. To rush along at a thirty mile an hour pace on a slippery road is to tempt Providence. Some riders will enjoy this sort of thing, but that is no reason why others who have a wholesome respect for their bodies should follow their example.

The Werner bicycle is an ample refutation of the lack of stability theory. In it, if anywhere, side slip would be most probable; the motor, high in the air and in front of the steering post, would seem to be placed there for the express purpose of testing the stability of the machine. Yet under ordinary circumstances and with reasonable care this machine is almost as safe as an ordinary bicycle.

With other forms of motor bicycles the danger from side slip is even smaller. Having a low centre of gravity, and the steering being entirely unhampered, they will be so little troubled by it that side slip will be little more regarded than it is at present.

There is a similar lack of solid basis for the other objections urged against motor bicycles. They handle almost as well as the present safety bicycle. The levers appear formidable only because they are a novelty. Once use has accustomed the rider to them they will become like second nature.

The complexity of the mechanism is an objection, but not an insuperable one. In the early days of the bicycle—both the ordinary and the safety—the same objection could have been urged, and with almost equal strength. But time brought about practical perfection and criticism was stilled.

So will it be with the motor bicycle. Its coming is certain, so certain that no opposition could stop it. What use, then, is there in opposing it when such action can only rebound on the heads of those who are responsible for it?

Speed the cause, instead of endeavoring to check it.

Wrecking the L. A. W.

Although devoted to trade subjects, the Bicycling World, like others in the trade, retains some interest in and sentiment for the League of American Wheelmen. It cannot, therefore, refrain from expressing regret at the turn of the League's affairs.

With an official organ that has fallen lamentably short of expectations, and that if of little or any support, the organization is menaced by the tight little ring of mutual admirers in New-York who seem bent on obtaining complete control of the organization, if only a wreck is left to control.

Having disgusted others, they have now about succeeded in their efforts to disgust to the quitting point the one man of all others who has done most to keep the machinery moving. With Abbot Bassett out of the way, the League will have a harder task than ever at holding its head up. It will then be pretty much at the mercy of the wreckers. They profess a great deal, but their performances supply the best criterion of their ability.

These wreckers constitute the same crowd that maligned and hurt cycle racing, and that promised, if it was thrown overboard, to fill the League's ranks with tens of thousands of the country's wealthiest merchants and most honored citizens, who would have nothing to do with a "sporting organization." How well they kept their word the League's sadly shrunken and shrinking membership testifies.

If the good old League of American Wheelmen has left any real friends, now is the time for them to step to the front.

Those quidnuncs who assume that the trade's interest in motor bicycles is of a negative character are destined to be rudely awakened before many months roll around. It will be found that this interest is not the less keen for being under the surface. There is scarcely a dealer or a repairer who is not giving the subject attention, while the number of experimenters is astonishingly large.

In some British trade circles the fact that the Dunlop tire patents have but two years longer to run is regarded with unmixed satisfaction. Not until then, however, is there any likelihood of a reduction in the present outrageous prices demanded for these tires.

The Brooklyn dealers who are waiting to see how many of them will survive the winter before going ahead with their organization are more than ordinarily sagacious.

IMPROVEMENTS POSSIBLE

Suggestions Brought Out by a Prize Competition—Commonplace Ideas Prevail.

Some optimists will say that the bicycle of to-day is perfect; that further evolution is impossible and need not be even considered.

From this view, however, there will be many who dissent. But of the latter few will go to the lengths travelled by English cyclists who have found fifty-five improvements possible before the ideal would be reached. Even when the "Utopian" suggestions are dismissed, and there are left some twenty-three suggestions which are accepted as serious, these critics will be considered rather exacting.

These numerous suggestions have been brought forth by a "Perfect Bicycle competition" conducted by Cycling. Prizes were awarded for the best series of suggestions, and the first of these was awarded to a gentleman most happily named, to wit, Charles Wheeler.

This lucky cyclist suggested nineteen improvements, viz.:

1. Standardization of Parts.
2. Variable Speed Gear.
3. Anti-Vibratory Bicycle.
4. Tire Improvements.
5. Self-Adjusting Bearings.
6. Improvements in Cranks and Pedals.
7. Improved Gear Cases.
8. Easily Adjusted and Folding Handlebars.
9. A Perfect Brake.
10. A Substitute for, or Improvement in, Enamelling and Plating.
11. Improved Chain Adjustment.
12. Rear Wheel Improvements.
13. Ideal Saddle.
14. Improvement in Front Forks.
15. Ideal Luggage Carrier.
16. Improved Mudguards.
17. A Perfect Head Lock.
18. Improvements in Frame Details.
19. Improvements in Spanners and Nuts.

Each of these changes is treated of at length, and from the list some of the most timely and interesting are selected.

The standardization of nuts and bolt heads, screws and threads would be a great boon to all classes of cyclists, and if it be possible to include cups and cones, so much the better. What cyclist of any experience has not at some time or other had to put up with makeshifts, great delay or considerable expense, owing to something going wrong at an inconvenient time or place? The standardization of parts generally need not by any means stamp out the individuality of the various makes, and the writer is of opinion that the trade would benefit to no little extent, especially in the tool room, as, were trade standards instituted, tool manufacturers would then cater for the trade, instead of many expensive tools having to be made either in a tool shop or at a specialist's.

To make a variable speed gear as simple as possible, the writer would suggest a two-speed gear. Such a gear, combined with the free wheel, would, there is but little doubt, greatly increase the pleasures of riding; as with nasty headwinds, which are absolutely the biggest bugbear cyclists have to contend with, a low gear could be brought into action, and greatly minimize the labor of propulsion; and, further, many hills, the ascent of which is, under ordinary conditions, impossible, would fade away into insignificance under the persuasive pedalling of a low gear. The advantage of the higher gear would be manifest on a slight down grade, and on the level.

The only objection to a variable speed gear that the writer can see is that it adds one more complication to the bicycle. This was perhaps the chief objection to the free wheel, but it is extremely probable that if manufacturers were to give the subject their attention, as simple a device could be put upon the market as, say, the later type of an ordinary free wheel clutch.

There can be but little doubt that the invention of the pneumatic tire only went half way toward killing "vibration" in cycles, and there is therefore a large field for welcomed improvement in the "shock absorbing" direction. Two points stand out in the mind of the writer at the present moment in connection with the design of a non-vibratory bicycle; they are (1) that there must be no complicated working parts to get loose, and (2) that the lateral rigidity of the machine must not be affected, especially in the case of the front wheel, by which the steering would be interfered with.

An improvement in the general method of fastening the crank to the axle would be appreciated. Most riders have at some time or other found the blessed (!) cotter key did not perform its work in the proper manner.

A strong and quickly detachable pedal fastening to crank would be welcomed by those hard pushed for storing room, and, coupled with a folding handlebar, would go a long way toward solving the "railway van" difficulty.

Steps in this direction have been taken in America, but the writer has seen nothing on this side that warrants any commendation. An easily adjusted bar would be of great benefit to any one riding long distances, as it gives a variety of positions. It will perhaps be remembered that "Century Hale" had two distinct types of bars on his machine to attain this object. The advantages resulting from folding handlebars are so obvious as to warrant no further remarks thereupon.

Has a Telescopic Rear Axle.

In the Singer motor tricycle a telescopic rear axle is employed. This enables the machine to pass through almost any doorway.

According to a British cycle paper, "candle lamps are likely to prove fashionable next season."

BRAKES AND TIRES

The Connection Between Them—Splendid Behavior of Tires Under Harder Usage.

There was a time when the advent of the coaster brake would have been the last straw to the tire makers. Struggling as they were in the early years against heavy odds in the endeavor to make a tire that would stand up, and barely equal to the task, they would have been quite unable to cope with this added difficulty.

For the coaster brake—or at least the braking part of it—adds a lot to the work the tire has to perform. If it is of the cemented variety it is not possible to use too much care with the fastening. At best, cement, even of the finest and applied with intelligence, leaves but a small margin between the safety and the danger point. It may hold all right for a long time, but it will eventually become dead and need to be renewed.

But when a back pedalling brake is used the temptation to a divorce between tire and rim are more than doubled. Even if violent applications of the brake are avoided, the small but constant ones will wear away the life of the cement. The chances are that the trouble will not be noticed until the harm has been done, and the machine is no longer rideable without recementing, even if the tire has escaped serious injury.

But this is not the only danger to be feared. The tire itself will encounter hard usage, through the brake application locking the wheel and causing the tire to skid. The tread will suffer most, of course, and give way the soonest, but other parts will not escape scot free.

If the tire is a light one it will succumb the sooner. But, light or heavy, it will encounter usage that only the present soundly constructed tires will endure. Those of the early nineties would not have stood it for half the time.

But fortunately the coaster brake did not come until the tire had been perfected.

Palmer's are Profit Payers.

The Palmer tire, in detachable form, appears one of the best money makers on the other side, 20 per cent dividends being the usual profits of the Palmer Tire Co. for several years. The customary dividend has just been declared for 1900, \$106,000 being available for the purpose, of which amount \$58,000 was carried over for contingencies and reserve.

Phoenix's Pride.

The Bente-Javins Company, of Phoenix, Ariz., is erecting a brick building adjoining its present premises, to be used as a repair shop, the most complete in the town. It will be fitted up in a first class manner, with machinery, etc., for handling every character of work that may present itself.

1901 FAVORITE BICYCLES

MODELS ARE READY.

You cannot afford to pass us the coming year. No Juvenile on the market will approach the 1901 FAVORITE in
QUALITY OR PRICE.

You will want Spokes or Nipples for 1901. Do not buy until you have our proposition.

TOLEDO METAL WHEEL COMPANY, TOLEDO, OHIO.



Fisk Tires

Since Noah was a Sailor

men have vied with each other in an effort to excel—to do some one thing better than anyone else, for

“He who seeks one thing in life, and but one,
May hope to achieve it ere life is done.”

Our sole occupation is the making of tires, and our one aim in business life has been to make them better than anyone else could make them, and all our energies have been concentrated in this effort. That we have succeeded, the growth of our business and riders of our tires will testify.

Fisk Tires have all the virtues of other high-grade tires and many of their own. Ride The Fisk and run no risk.

Fisk Rubber Co., Chicopee Falls, Mass.

BRANCHES:

SYRACUSE, 423 So. Clinton St. BUFFALO, 28 W. Genesee St. DETROIT, 252 Jefferson Ave.
CHICAGO, 36 Dearborn St. SAN FRANCISCO, 159 New Montgomery St.



A TIRE THAT HELPS TO SELL THE WHEEL

BECAUSE

It is DETACHABLE, and therefore easy to repair.
It is handsome in appearance.
It is of the highest grade.

G. & J. TIRE CO., INDIANAPOLIS.

YOU REGULATE THE FLAME WITH A GAS VALVE IN THE

COLUMBIA AUTOMATIC GAS LAMP.

For Bicycles, Buggies and Automobiles,
and the Water-feed takes care of itself.



LIGHTS AT ONCE.
Burns $\frac{1}{3}$ the carbide. Gives twice the light.

WATER FEED, automatic, i. e., requires no regulator. Water flows proportional to flame set.

GAS VALVE regulates size of flame, high or low—only lamp in which you can regulate the flame in the manner.

Gas generated at low pressure thus avoiding all danger common to high-pressure lamps.

HINE-WATT MFG. CO.,
14-16 North Canal St., Chicago, Ill.

WHAT WILLIS LEARNED

New York's Well-known Jobber Talks of His Trip Abroad.

E. J. Willis, New York's best known jobber, returned from his trip abroad last week.

He visited Paris, but spent most of his time in England, where he went, as he says, to visit his folks and to see if there was any chance for a jobber to do business there.

He came back convinced that there was little promise of the sort.

"There's a chance for the manufacturers of good low priced bicycles who can go in on the ground floor, but there's not much of a show for goods that have to pass through two hands."

"Low priced bicycles?" the Bicycling World man ventured credulously.

"Yes, low priced bicycles. Why, I know where one order for 5,000 low priced American bicycles has just been placed by a London house that is doing a mail order business. They use their own nameplate and sell the wheels for about \$22, and do a large business, but the fact is not generally known, and the house is little known or badly underrated by the English cycle trade."

"But isn't a fairly good trade being done in the better known American bicycles—Columbias, Cleverlands, Ramblers and the like? The general impression is that they have the call."

"There was a good trade in them," Mr. Willis responded cautiously. "But from all I could learn it is not what it used to be. When the A. B. C. took charge they changed men and upset everything and made a mess of it generally."

"Sundries? America furnishes most of the bells and wrenches used in England, but there is small call for the other sundries. They have little use for our lamps or saddles, and you couldn't give away a neat, light pedal like this," said Mr. Willis, picking up a Forsyth pedal as he spoke. "They are still using the big square things with bolted plates that we discarded years ago. They still cling to heavy metal mudguards, too; I don't think I saw a wooden one while I was there. All the wheels are equipped with pumps like this, held on the frame by clips," and as he spoke Willis took down and exhibited a telescopic pump about eighteen inches long when closed and weighing about a pound. "You couldn't give away one of our pocket pumps. Their toolbags are miniature repair shops, and dangle from the rear of the saddle, just as they did twenty years ago."

Mr. Willis says the newest thing he saw while abroad was the electrophone—a central office not unlike a telephone exchange, which for £10 per year connects any telephone subscriber with any theatre, music hall or public amusement or function and enables the hearer to listen to the play or the speeches without moving out of his own house.

Now Post & Lester Co.

"At a legally warned meeting of the stockholders of the Cycle Supply Co.," so runs the quaint wording of the notice, "a corporation organized under the laws of the State of Connecticut, held at its office in Hartford, Conn., on November 15, 1900, the following vote was passed:

"Voted, That the name of this corporation be changed from the Cycle Supply Company to the Post & Lester Company."

Track for Motorcycle Trials.

Realizing the growing public interest in motorcycles and the desire of the average man to "see the thing work," the Madison Square Garden management will set aside the basement for the trial of motorcycles during the week of the Cycle Show; this will afford a track thirty feet wide, the corners of which will be banked if it is found necessary.

Three Motorcycles in One.

E. J. Edmond, of Matteawan, N. Y., who for more than a year has been experiment-



ing with motorcycles, has finally completed his bicycle, which is in shape for marketing. It is shown by the accompanying illustration in tandem tricycle form.

The machine is really a three in one affair. Primarily it is a bicycle, but by removing the front wheel and substituting the two wheeled front seat attachment it becomes a tandem tricycle; by unbolting and removing the seat and springs, it remains a tricycle.

Complete, the machine will, with a two and one-quarter horse power De Dion motor, list at \$500; as a bicycle, at from \$175 to \$300, according to the power of the motor desired. At the Danbury (Conn.) Fair, on a rough horse track, ridden on the outer edge, Mr. Edmond says the bicycle covered a mile in 1:49½.

Johnson's End-of-the-Century Surprise.

Early this spring, when the cycle trade was breaking away from the racing game, the Iver Johnson Arms and Cycle Works supplied a genuine surprise by taking on Major Taylor, who turned out America's first hall-marked colored champion. And now, thus late in the season, the Johnson people have created more talk by adding Harry D. Elkes to their "stable." Elkes celebrated his donning of the Johnson colors by pushing a red headed Iver Johnson racer 25 miles in 37:02½, 17 seconds under the record and an average of 1:28 4-5 per mile. Elkes did the trick on the Brockton track.

A. B. C. STOCKS ADVANCE

Stock Exchange Returns its Application, but the Securities Jump, Nevertheless.

The American Bicycle Co. has made application to have its stock listed on the New York Stock Exchange, and the application is now somewhere in the mill. It was returned to the A. B. C. headquarters because, according to one source, it gave too much detailed information, but, when this was mentioned to one long familiar with the ways of Wall Street he smiled a quizzical sort of a smile, and said:

"I've heard of the Listing Committee returning applications for fuller information or because the figures were top heavy or too lop sided, but this is the first time I've ever heard of an application being returned because it was too full of information; it may be true, but it's a new one on me."

Whatever the cause, however, A. B. C. securities have, during the past week, shown more strength than for several months past. A. B. C. common has actually advanced to 7, a gain of 3½ points, preferred from 18 to 24½ and the bonds from 65 to 74.

Relays Go South.

G. V. Keller, formerly Southern sales agent for the Relay Bicycle Company, of Reading, Pa., who bought the patents and material for the wheels manufactured by that firm, has located in Charlotte, N. C. He will open a factory in that place on December 1. He says that there is a good demand for that style of wheel in the South. He has engaged the former foreman at the Relay works, who will take charge of the shop.

Strength of Tire Fabric.

Commenting on the immunity of tires from bursting, a tire tradesman says that as there is usually an enormous margin of strength in a tire fabric, tires rarely fail from inherent weakness. There is no difficulty in getting a fabric having a thickness of about 1-40th of an inch which has a tensile breaking strain of 300 pounds to the inch, while the strain in the envelope of a tire is rarely more than 30 pounds to the inch.

Delay will be Slight.

The National Cement and Rubber Co., of Toledo, O., had an unwelcome visitor last week in the shape of a small fire. It was extinguished before any great damage was inflicted. Little inconvenience will be caused to the concern's customers, as prompt shipments will be made after November 26.

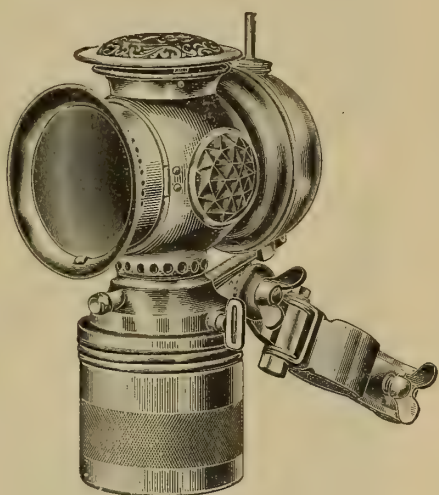
Merrihew Swears Off.

S. Wallis Merrihew, now of No. 154 Nassau street, New York, has filed a petition in bankruptcy, with liabilities \$33,080 and no assets. The debts were contracted at Wilmington, Del., as the McDaniel & Merrihew Cycle Co.

CATALOGUE ALL FOUR

1901 SOLAR

CYCLE, CARRIAGE AND HOUSE LAMPS,
AND FORTIS ELECTRIC EXERCISER.



Cycle Lamp.

Square Carriage, Standard Carriage and Automobile. Retail prices \$3.00 each to \$10.00 each.

For 1901 the leading bicycle lamp will be the same

"GOOD OLD SOLAR"

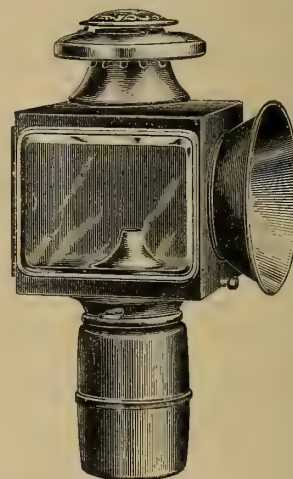
as ever. Experience has demonstrated that the Solar is reliable—other lamps have been more or less so, but the weak points would crop out. The purchaser blames the jobber or dealer for an unsatisfactory lamp—so it is good policy to stop experimenting and confine yourself to **THE SOLAR**. Retail price \$3.00.

Improvements—New bracket and connections; rubber gasket held in body of lamp by metal washer.

We can make deliveries after November 15th.

THE SOLAR CARRIAGE AND AUTOMOBILE LAMPS

Have become as standard as our bicycle lamps. They are made in different styles—Dash Lamps,



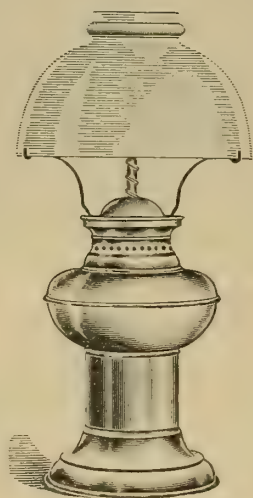
Carriage Lamp.

Our latest production, the

"SOLAR HOUSELIGHTS,"

Bid fair to revolutionize the lighting of homes, stores and churches, and you cannot afford to have your 1901 catalogue come out without a full description of them.

Retail price of each light, \$3.50.



House Lamp.

Most prominent among the few **good sellers** for side lines for bicycle dealers is the

FORTIS ELECTRIC EXERCISER,

A first-class exercising apparatus and medicinal battery combined. Retail price, \$7.50 each.

PRICES AND ELECTROS READY ON ALL OF THE ABOVE ARTICLES.

THE BADGER BRASS MFG. CO.,

10 Howard St., Kenosha, Wis.

FROM FRANCE

Some News and Suggestions of Value to Those Interested in Motocycles.

Paris, November 6.—There seems to be such a natural transition between the tricycle and the voiturette that it would be difficult to say where the one ends and the other begins, if it were not for the rather common definition that the tricycle must be assisted by pedals. Theoretically, of course, this is not absolutely correct, as any light machine built up of cycle parts with three wheels can come under this category.

For the purpose of races and trials the motorcycle must have pedals and chains for starting and assisting the motor when necessary. I can only call to mind one exception to this rule, and that was the old Hildebrand-Wolfmüller bicycle, which was introduced into France after it had failed to do anything in Germany. The patent rights in that extraordinary machine were purchased for a big sum by an Englishman who was at the head of a cycle company in Paris. It cost the company still more to push the machine, and it was pushed literally, for the way in which it was demonstrated before the public by an expert rider, who ran alongside every dozen yards or so and jumped on when it had got up enough speed to take it along for a short distance, was amusing to the onlookers as an acrobatic performance, but did not awaken any desire among people to try it themselves. The efforts to force such an impracticable machine upon the public were simply so much misplaced energy. The Hildebrand bicycle has gone to the scrapheap.

BIG MISTAKE OF MANUFACTURERS.

This question of transition is suggested by several new vehicles coming under my notice which may be regarded as a connecting link between the tricycle and the voiturette. One that has been on the market for several months cannot be called a voiturette, because such vehicles are light cars that are required to carry two persons; and the one I refer to is something like an invalid's three wheeled chair, with the steering lever all complete. The motor is fixed on the head tube of the front wheel, which is driving and steering, and all the levers are on the steering rod. The disadvantages of this arrangement are threefold. The vehicle is heavier than a tricycle, because the saddle is replaced by a carriage body, which adds considerably to the weight, and there is no extra power to overcome this additional weight, as more powerful motors than those on tricycles cannot be used without water cooling. Again, it does not have the advantage of pedals for helping the motor when necessary. The result is that a vehicle of this type will run very well on a road like a billiard table, but it get stuck when it comes to any slight upgrade.

With a tricycle motor it is useless to en-

cumber the machine by trying to convert it into a kind of voiturette. There are lots of manufacturers here who are making this mistake. The idea of being comfortably seated in a light car is very alluring to the Frenchman, and makers think that they can supply him with what he needs by simply constructing a frame with a longer wheel base, putting in a carriage body and fitting an ordinary $2\frac{1}{4}$ h. p. motor. The motorcycle can only be improved in its own groove. The light carriage is a vehicle apart, and so far as experience has gone it does not seem possible to construct a satisfactory transition vehicle.

WATER COOLED CYCLE MOTORS.

In the above paragraphs I have laid down a hard and fast rule which is the logical outcome of past experience, but in the motorcycle industry such rules are always liable to some qualification, as new developments crop up so unexpectedly that it is never safe to say what can or will be done in the future. I should scarcely like to hazard a guess as to the number of people in this country who are trying to solve the problem of a perfect motorcycle. Every one in the cycle trade and out of it regard mechanical propulsion as a gold mine containing rich "pockets" which will bring fortunes to those lucky enough to drop upon them, and there is quite a feverish research for new devices and improvements which will make the motorcycle a better instrument than it is at present. The types being brought out now are legion.

The main thing aimed at by inventors is to increase the power of the motor, and it is by no means an uncommon thing to see 5 or 6 h. p. engines on racing tricycles, but these, of course, are merely used by professionals, who, if they get through a race at all, do so in marvellous time, and if they fail through the piston gripping or through the piston rod or crank shaft breaking it is put down to another of those little accidents which are unavoidable in motorcycles. For ordinary purposes no one thinks of exceeding $2\frac{1}{4}$ h. p. If the motor could be cooled with water there would be practically no limit to the power that could be adapted to a tricycle, but all the attempts to introduce cycles with water cooled motors have failed, the reason being that not only is the water tank an encumbrance and adds to the weight of the machine, but if the motor develops more than three horse power it requires tremendous muscular effort at starting. Still, water cooling would be a great advantage to ordinary motors by increasing their efficiency, and consequently reducing the consumption in proportion to the power actually developed if it could be done without inconvenience. I saw one such interesting device at the Chanteloup hill climbing trials on Sunday, when the combustion chamber of a tricycle motor was cast with a water jacket and there were a couple of small radiators fixed on the back stays. The radiators were not more than six inches in length. The water tank was small, and in fact the whole affair was hardly conspicuous. A motor of this

kind would not require much water, and a little would go a very long way, but it would need a good deal of experience before it could be said whether the advantage justified the fixing up of a water cooling apparatus.

MOTOCYCLES AND TWO-SPEED GEARS.

Motocycles did not officially compete in the Chanteloup hill climbing trials, as one of the conditions of the competition was that vehicles should carry at least two persons. This did not prevent several cyclists from having a try on their own account for the sake of making a comparison with the cars; but, though they did a better performance than most of the voiturettes, they were hopelessly left by the heavy vehicles. In previous years when trials were open to motorcycles some of the best performances were done by professionals on tricycles specially built with big motor for these contests; in fact, the record is held by Becannais, who covered the 1,990 yards of steep up-gradient, with three turnings, in 2:34.45.

The absence of elasticity in the gasoline motor tells, of course, more seriously on the tricycle than on the car, which has the advantage of being able to gear down on the first speed when it has to overcome any great resistance. In the tricycle this is to a certain extent compensated for by the pedals, which give sufficient momentum to the machine to prevent the motor from slowing down to a point at which it will stop. This is extremely hard work, as when the motor has slowed to such a degree as to compel the rider to use the pedals the power developed has, of course, fallen considerably, to probably less than half the nominal rate, and not only is the pedalling on hills very tiresome, but, being geared low to facilitate starting, it has to be done by an extremely quick movement.

Thus we have this curious state of things that for hill climbing you want a high pedal gear, so as to be able to propel the machine when the motor is running at nearly its highest number of revolutions. It is then much easier to propel a tricycle than when pedalling with a low gear at the moment when the motor is on the point of giving up the struggle. In a word, with the present arrangement of a one speed gear for tricycle motors the hills have to be rushed at the highest speed. But, as I have said, you cannot have a high chain gear without being obliged to exert considerable muscular effort at the start. Obviously the best arrangement would be to have a low chain gear with a two speed motor gear so that by using the first speed on hills it would not be necessary in the great majority of cases to employ the pedals at all, while in any event the work of pedalling would be comparatively easy. I have never been able to explain why two speed gears have not come into more general use. It is true that of the number now on the market only two or three can be regarded at all satisfactory, and their price is rather high, so that most riders may prefer to do without them simply

because of the cost. A maker who could produce a good, reliable and fairly cheap two speed gear for tricycles, and one that could be fitted to any type of machine without too much expense, ought to be able to do a big business.

MOTOR BICYCLES BECOMING POPULAR.

In my wanderings abroad in search of novelties I have been particularly struck by the number of motor bicycles, and more especially by the number of different types. I thought that this machine was dying out. At one time it seemed like running the tricycle very close in the race for popularity, but the early types gave such a lot of trouble that cyclists would have nothing to do with them. There was nothing particularly enticing in the original Werner bicycle, which, when it was brought out some years back, was fitted with incandescent tube ignition, and as the motor is on the head tube the rider had the burner right under his nose—an arrangement that was anything but pleasant on a warm day. The cyclist was hot, black and perspiring, and a strong odor of petrol floated about him. Incandescent tube ignition was highly dangerous on a machine like a bicycle, which was liable to accident through side slip, when the smashing of the petrol tank would cause conflagration. Since then electric ignition has been so far perfected that it is nearly as reliable and certainly more efficient and safer than the burner, and every cycle nowadays is fired electrically. One of the most serious obstacles being thus overcome, makers find a growing demand for bicycles. Most of them fix the motor on the down tube, and gear the motor shaft by means of a belt onto a pulley, like an ordinary bicycle tire attached to the spokes of the rear wheel. In the latest system the chain is dispensed with, and the sprockets are replaced by two pulleys of equal diameter on the bottom bracket and the driving wheel, and connected by a belt.

In motorcycle matters the wish is very often father to the thought, and every new attempt to extend the usefulness of the motor propelled machine is hailed as a triumph. People are apt to forget that a new invention does not develop in a day, but perfects itself by a slow process of evolution, and nowhere is the progress likely to be slower than in the motorcycle or the motor car. Some months ago the Minister of Posts and Telegraphs awakened great hopes by experimenting with motorcycles and voiturettes along with safety bicycles for the collection of letters, but after a long trial he gave up the idea of using motor machines and found that it was safer and equally expeditious to employ safety bicycles. Of course, no reasonable being could have expected that inexperienced postmen would be able to get as much out of the motor tricycle as out of the bicycle. As they have to get through the traffic and stop frequently to clear the boxes, the motor machine does not present many advantages.

Why Persons is Satisfied.

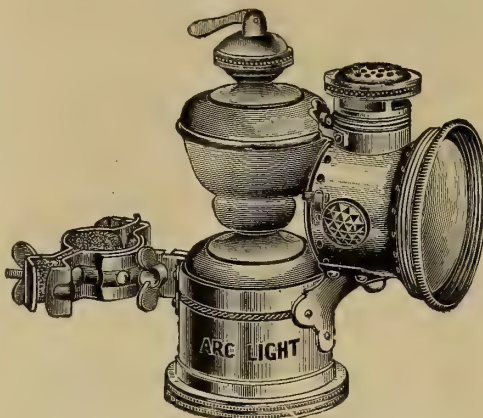
One of the men who is immensely tickled over the trade situation and who bears witness that 1901 bears every promise of a "high grade year," is C. A. Persons, of the Persons Mfg. Co., Worcester, Mass. Persons makes nothing but high grade and, relatively speaking, high priced saddles, and it is the volume of his orders that has given



him the rosy hue and entitles him to speak with no little authority. He is bubbling over with satisfaction. He was one of the first, if not the first to foresee the return of the suspension or so-called English saddle and is now reaping the reward. His 1901 model, here shown, is essentially a high class production. It incorporates a number of improvements, among them a plaited piano wire frame and a new tensioning device. The use of a nameplate on the cantle of the saddle is also a new kink.

Miller and the Arc.

The Miller Mfg. Co., Torrington, Conn., are about ready for the 1901 campaign. Their Arc Light has been improved wherever pos-



sible, and, as always, their proposition to the trade is interesting. This tells the story in the fewest possible words.

Clutches on Auto-Organs.

It is frequently the case that the application rather than the principle is what makes an invention valuable. The clutch used for coaster-brake devices is by no means new, even as applied to cycles, but in combination with the back-peddaling brake, and as used on a bicycle, it has scored a tremendous hit.

The curious discovery has been made that the prototype of the roller clutch now in such extensive use on bicycles was employed years ago on auto-organs. In taking apart a Chicago-made auto-organ recently there was found a couple of clutches on the winding arrangement for the spring motor. The strange part of the discovery is that the clutches, which are fitted with three rollers, working in a cam with blocks, such as are so well known now, are kept up to their work by spiral springs; but instead of blocks between the springs and the rollers a U-shaped piece of sheet steel is used, which effects the same purpose.

Lamps in Connecticut.

When the Connecticut lamp law was in the Legislature the then officers of the Connecticut Division, L. A. W., spread notices broadcast that every man, woman and child in the State who rode bicycles were imperilled and demanded the defeat of the bill.

A few months after the law had been in force these same officers, who believe in lamps on street cars and on street obstructions, took a mail vote of their division on the question. To their great surprise, the vote developed that something like 49 per cent of the membership favored the law, utterly disproving the early assertion that every one in the State except the lamp makers were against the use of lamps.

This was a knockout blow, and until recent weeks nothing further has been heard of opposition to the measure. Of late, however, some one has been working up a movement for the repeal of the law, and the press of the State has been discussing the matter. It is a weak and ill timed effort that will hardly prevail.

There is small doubt that the sense and best sentiment of the State thoroughly agree with the opinion voiced by the Hartford Courant, as follows:

"It is reported that a concerted effort will be made throughout the State to secure the repeal of the bicycle lantern law."

"This remark, in one of our State exchanges, calls to mind the talk that was started during the campaign about making a political element of the people who object to the bicycle lantern law. It was the smallest bits of politics that the season developed.

"The fact is that all over Connecticut the one adverse criticism of the lantern law is that it is not wide enough. It applies now only to those vehicles that have rubber tires. These are the quietest, and so the most dangerous at night. But every wheeled vehicle should be required to carry lights after dark. The question of the character of the tires is a mere detail. The principle involved is that you cannot see in the dark. Most people admit its truth.

"Go where you may nowadays and you will find that in nine out of ten places every carriage out in the night has lights. Away down in Mexico City they will not permit anything else. It is the only rule of safety. We have gone a wholesome distance in the right direction, and now the next Legislature should perfect the work by extending the law to everything on wheels. Nothing short of this is to be tolerated.

"It is the veriest nonsense to talk about repealing the law. As well put out street lights, and extinguish all village improvement societies, and all stay in the house from sundown to sunup."

The Bridgeport Gun Implement Co. have brought out a new racing pedal. It is a trim and fetching affair.

MOTOR BICYCLE'S BEHAVIOR

Easy to Manage—Alleged Faults Fail Utterly to Materialize.

Is there any material difference between a bicycle fitted with a motor and one without this wonderful means of propulsion?

Does the simple addition of the motor change the bicycle into something entirely different from the machine so well known to the present generation of cyclists? Have they, in taking it up, got to throw to the winds their knowledge of the present bicycle and go through a novitiate of an entirely different kind?

Or is the motor bicycle but a bicycle with a motor attached, balanced, steered, controlled and in general handled just as is a bicycle, with the sole exception of the motor?

The latter would be the natural supposition, but there is a disposition to take the other view of the matter—to assume that the motor bicycle is a machine entirely distinct from the regular bicycle, and only to be mastered after much toil and tribulation of both mind and body. In such dark colors is the picture painted that the wonder is that any one has had courage to make a closer inspection of it.

Nothing could be further from the truth.

The motor bicycle is, as its name implies, a bicycle with a motor fitted to it. As far as the riding goes, it differs not one whit from the ordinary bicycle, and with the power turned on the rider could easily imagine that he was on a coaster-brake machine, coasting down a long hill.

The management of the motor requires some extra care, of course. But a rider of ordinary skill and intelligence can make the mount or dismount, steer the machine, turn corners or go around obstacles just exactly as he would on a pedal-propelled machine. Neither skill nor strength beyond the ordinary is required.

A trial of the Orient motor bicycle has convinced the *Bicycling World* man of the truth of the above observations. It is well within bounds to say that a half hour or so's riding of this machine did more to dispel false ideas and to shatter doleful predictions than any amount of discussion could possibly have done.

Any fears which may have been entertained as to difficulty of management were put at rest almost instantly. The start was made with exceeding care, with an instructor holding the machine; but so quickly was a feeling of confidence engendered that within a few minutes a voluntary dismount was made, followed by a remount, for the sole purpose of confirming the belief that they were entirely practical. Of course, if the machine was permitted to lean over when motionless the weight made it difficult to hold it up; but when it was maintained in a perpendicular position there was not the slightest trouble.

Nor was there any uncertainty about the

control when the machine was in motion. A twist of the wrist shut off the power, and the machine ran just as steadily, with the feet motionless, as could possibly be desired. A touch of the brake checked the speed, while the switching on of the sparking caused it to shoot forward. The gas and air were controlled by a single lever, this causing the proper mixture to pass into the combustion chamber, while the compression lever was of the regulation variety.

In starting the machine there was no such effort required as is so unpleasantly associated with a tricycle. The pedalling did not seem very much harder than with an ordinary machine, although this may have been partially due to the fact that much greater friction was looked for.

Under the stress of extended and exhaus-



NEW YORK BRANCH: 214-216 WEST 47th ST.
BOSTON BRANCH: 80 BATTERYMARCH ST.,
Near Fort Hill Square.

tive tests the motor bicycle may develop defects. It may slip when it encounters slippery roads; but in this respect it is no different from the bicycle of the day, and immunity from this disagreeable shortcoming could not reasonably be expected.

In short, tried by any test it is not easy to see where the motor bicycle falls short. As it is a bicycle, it must have the defects of its class; but they have not prevented the two-wheeler from becoming popular. As it is also a motor-propelled machine, it naturally falls heir to the ills which afflict such machines; but neither could exemption from them be looked for nor expected.

It is not easy to see, therefore, what can be urged against the motor bicycle. But whatever may be, these objections are almost certain to disappear once the motor bicycle comes into actual use.

Pedal Inventor Dead.

Henri Michaux, for whom New York's once famous Michaux Cycle Club was named, died in France early this month. He was the generally accepted, but sometimes disputed, originator of pedals as applied to bicycles.

WOMAN'S SADDLES WANTED

Veteran Saddle Maker Tells Why They Have Been Neglected.

"Why doesn't some one bring out a thoroughly good woman's saddle?" repeated the man who knows the saddle game from A to Izzard, having made the production of these indispensable articles almost his life work.

"I'll tell you why no one does," he said. "It is because such a saddle is not easy to make, and the incentive is not sufficient to cause any maker to go to the trouble and expense of making one. Just so long as he is not forced to do this—that is, so long as no competitor takes this step, and thus eats into his trade—that long and no longer will he continue to put out the apologies which are found on the market.

"It's natural, too, when you come to think of it," he continued reflectively. "Saddle prices have been beaten down until there is little or no profit left in them, and very frequently the number of patterns made determines which side of the ledger the balance will appear. If the number is kept down there is some chance of making a profit; but if the slightest freedom in this respect is permitted the result is very likely to be a loss.

"It is much easier to sell for use on women's machines saddles almost identical with those made for the sterner sex. The latter account for the bulk of saddles, and there is a manifest advantage in using these saddles—with but slight changes—for women's use also.

"But even if it is decided to ignore the cost and design and manufacture a woman's saddle, the rest is not clear sailing. What is the best saddle for women, and how should it differ from other styles? Outside of the fact that it should be shorter and broader at the base—and even these features are sometimes disputed—there is no approach to unanimity on the subject.

"Plenty of springs, padding for the top, an absence of projections at the front, such as might catch the dress, plenty of adjustment, both as regards the tilt and the fore and aft movement—these are some of the features generally considered to be essential. But not only do they in themselves fail to make a perfect saddle, but they are not subscribed to as cardinal doctrines of faith by all women riders. The very feature that will appeal most strongly to one will be regarded with disfavor by another.

"So you will see that the way of the saddle maker who starts out to make a woman's saddle which will meet with general approbation is not an easy one. He has his work cut out for him, and, as I have said, he gets small reward in the end.

"It may, therefore, be put down as pretty certain that an improvement in women's saddles will come only when a strong demand is made for them, and when those who want such an article are willing to pay a reasonable price for it.

"Until that time saddles will undergo little change. Riders will keep on complaining of them, and as far as actual results accomplished are concerned these complaints might just as well not be uttered.

"You may think me pessimistic," he said in conclusion, "but I am sure you will agree with me sooner or later."

Is Brazing Doomed?

From Worcester, Mass., comes an interesting story, related by "a prominent dealer who keeps in close touch with the trade," of a considerable extension in the use of electric welding in connection with frame building. This extension, it is said, will cause a material reduction in cost, owing to the doing away with the brazing process heretofore used.

Ever since bicycles were built, says this tradesman, the tubing has been joined together with the lugs and crank hanger by the expensive means of brazing. At first this work was done by hand, but of late the parts have been joined by dipping in melted brass, the hot metal seeking all parts of the joint after a moment of immersion.

The process of electric welding has been applied to the formation of the lugs, crank hanger and other connections two years with success, but then the parts had to be brazed together after fitting.

The experiments have been carried to such an extent that completely welded frames by the electric process are commercially possible.

The invention of a device whereby the joint produced by electric welding might be made stronger solves the problem. Two stamped tubular reinforcements, tapered, are placed in each joint to be welded, and thus the joint is made three times as thick as

the ordinary joint and practically three times as strong. The process of electric welding is practically instantaneous, and only one-eighth of an inch on each side of the weld is heated. It is not possible to burn the tube or heat it to such an extent that it is weakened.

Good for Weak Hearts.

High praise is bestowed on the coaster-brake by an English physician. He says that in his opinion the "free wheel is the grandest invention of all for the heart, and with a free wheel, a moderately long crank and a two speed gear it is almost impossible for normal people to injure their hearts."

For the Little Tots.

One of the latest aspirants for trade and public favor is the ball bearing, pneumatic tired velocipede, designed for children who are too small to ride a bicycle. It promises to be very successful and to meet with a large sale.

Rims for Automobiles.

Rims—presumably made of wood—for automobiles will, it is said, receive considerable attention at the Lobdell plant of the American Wood Rim Company this year. The factory is about ready to start up with a full force of workmen.

Good Work in the West.

S. F. Heath, who, in addition to writing the Wisconsin Wheel Works advertising, also travels the West in the interests of the Mitchell bicycles, writes that he is meeting with the most gratifying success. He says he has closed with the very best firms in Peoria, Davenport, Rock Island, Cedar Rapids, Des Moines, St. Joseph, Kansas City and Omaha.

Will Now Manufacture.

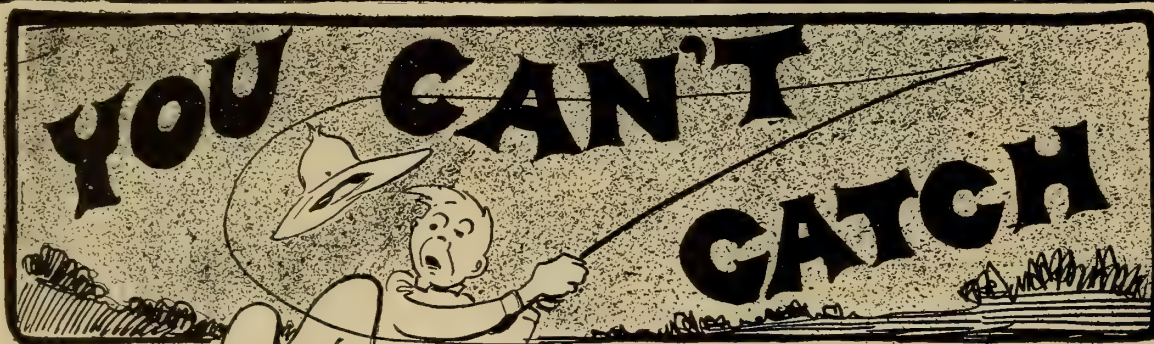
The C. F. Webber bicycle works, Albany, N. Y., is the outcome of a retail business conducted by C. F. Webber. The new concern will engage in the manufacture of bicycles and automobiles on a small scale, a building having been leased for this purpose.

Shows Sure of Success.

The English shows—the Stanley and the National—open their doors to-morrow. In spite of the depressed condition of the trade across the water, the number of exhibitors at both shows is sufficiently large to insure their being successful.

To Acquire a Motorcycle Education.

"Motorcycles and How to Manage Them." The name explains the nature of the book. Price 75 cents. For sale by The Goodman Company. * * *



All Kinds of
Fish with the
Same Bait.

Jobbers and dealers who do a successful
business carry a complete line of

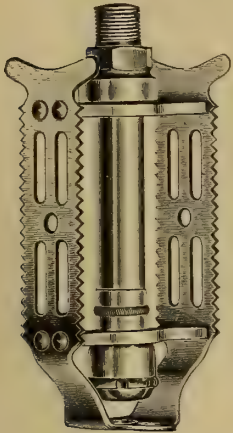
**GOODYEAR
TIRES**

For they are made in all grades—Highest, Medium, Low Priced.

ELECTROS AND PRICES ON APPLICATION.

THE GOODYEAR TIRE AND RUBBER CO., Akron, Ohio.

HOW TO TELL A HIGH GRADE BICYCLE.

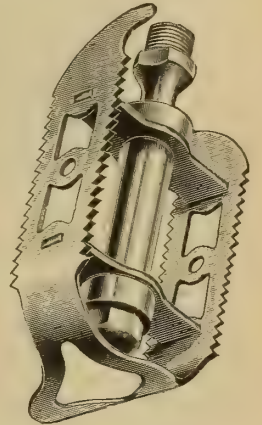


Of course, you can't tell what is under the enamel, but the equipment rarely fails to tell the tale. Any maker who pinches pennies out of the equipment will pinch it out of the material that is covered by the enamel. If this suggests anything to you,

**Ask Yourself Why Curtis Pedals
are Never Found on Cheap Bicycles.**

THE CURTIS PEDAL IS AN UNFAILING INDEX
TO THE HIGH GRADE WHEEL.

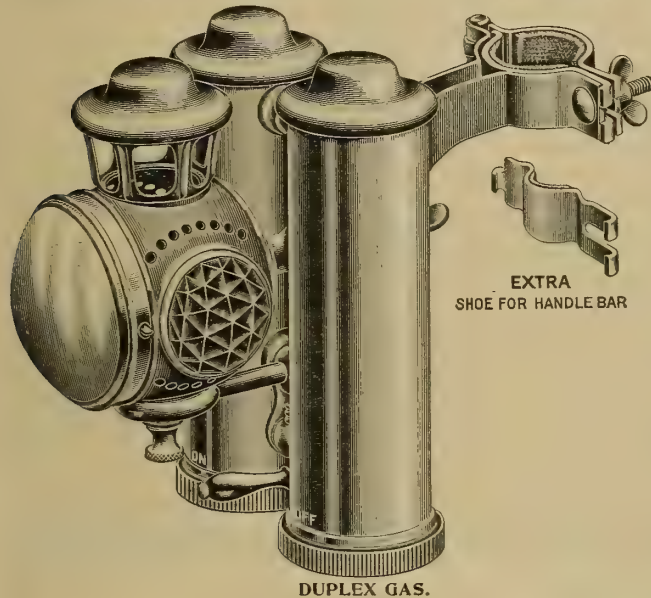
WRITE FOR CATALOGUE "C."



REED & CURTIS MACHINE SCREW CO.,

WORCESTER, MASS.

WINNERS IN A BIG FIELD, of the "FREE FOR ALL" FOR 1900.



DUPLEX GAS.

Distancing all competition, and winning out easily under a pull, without even being paced by an "ad."

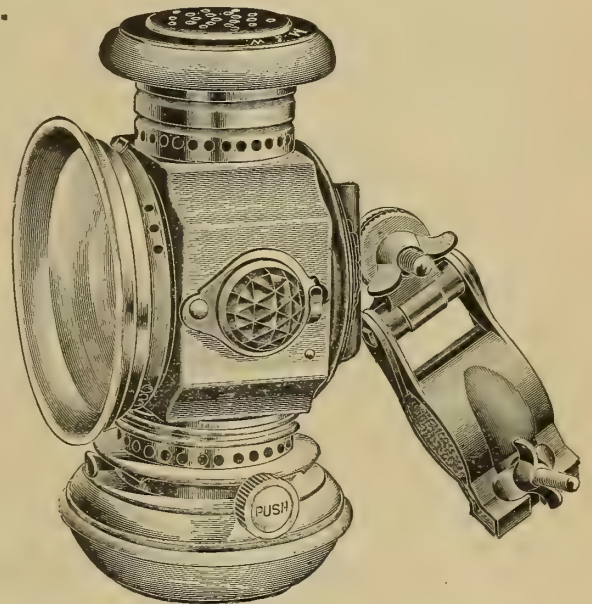
This famous, well-matched pair, now fully seasoned, will be pushed to

BREAK ALL RECORDS
DURING 1901.

THE
MATTHEWS & WILLARD
MFG. CO.,
WATERBURY, CONN.

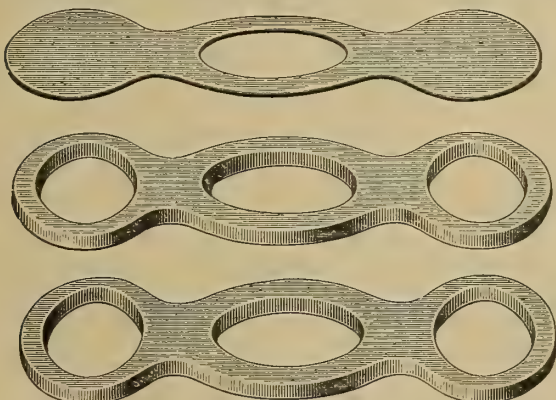
New York Office
40 Murray St.

Illustrated catalogue free.



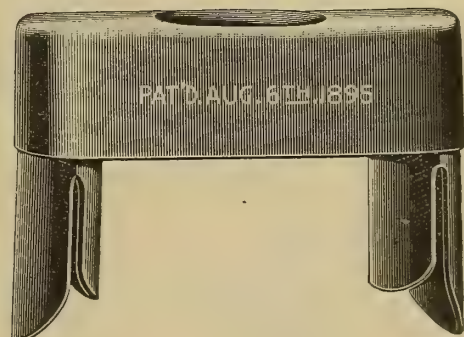
M. & W. OIL.

PLATE CROWN No. 2000.



Made for 1 in. center and 7-8 in. sides. 2 in. between sides.
Will furnish plates separately for building 3-plate crowns.

BOX CROWN No. 2004.



Made for 1 in. or 1 1/16 in. center and 1 in. sides. 2 in. between sides.
Fully reinforced in body of crown, also in fork sides.

SEND FOR CATALOGUE OF 1901 PARTS.

THE H. A. MATTHEWS MFG. CO., SEYMOUR, CONN.

The Retail Record.

CHANGES.

Neleigh, Neb.—F. E. Geisker succeeds I. Howell.

Xenia, Ohio.—A. H. Brundage succeeds E. P. Jones & Co.

Ashland, Ore.—D. B. Provost succeeds Kinney & Provost.

Cresco, Iowa.—Anthony Anderson succeeds Anderson & Sobolik.

Sandusky, Ohio.—Puckrin & Co. succeed Neill, Puckrin & Co.

Shell Rock, Iowa.—Stanley & Harmon succeed Hunt Brothers.

Stockbridge, Mass.—Dennis Morrissey, erecting a repair shop.

Bryant, Iowa.—Monahan & Hanrehan succeed Monahan Brothers.

Charlotte, Iowa.—Monahan & Hanrehan succeed Monahan Brothers.

Claypool, Ind.—M. W. Arnold has sold his furniture and bicycle business.

Keswick, Iowa.—Hungerford & McBride succeed Hungerford & McClure.

Batavia, N. Y.—William Gilmore, removed from 30 Main street to Exchange Place.

Saratoga Springs, N. Y.—The Ketchum Bicycle Co. has purchased the stock of N. G. Freeman.

Depew, N. Y.—Klepfer Bros. have built an addition and will assemble machines during the winter.

FIRES.

Rochester, N. Y.—Fred. A. Mabbett & Co., loss \$200.

Southboro, Mass.—Moses Greenwood, loss \$1,000; insured.

South Manchester, Conn.—Fay's bicycle shop, loss slight.

MORTGAGES, ETC.

Windsor, Ont.—F. J. Parent has recorded a chattel mortgage for \$491.

Attleboro, Mass.—J. A. Ceeley & Co. have recorded a chattel mortgage for \$400.

NEW STORES.

Danielson, Conn.—Lafayette Hoyle, repairing.

Recent Incorporations.

Buffalo, N. Y.—Forsyth Mfg. Co., with \$50,000 capital, to manufacture metal goods. Directors, C. F. Forsyth, H. B. Rose and E. A. Forsyth, jr., all of Buffalo.

Detroit, Mich.—Rambler Cycle & Automobile Co., with \$25,000 capital, to manufacture and sell bicycles, etc. Incorporators, L. H. Foster, G. A. Stone, T. A. Parker and F. W. Aldrich, all of Detroit.

New York, N. Y.—C. J. Downing & Co., with \$5,000 capital, to deal in bicycles and automobiles. Directors, C. J. Downing, V. B. Rice and Carrie M. Downing, all of New York.

Buffalo, N. Y.—Adirondack Cycle and Specialty Company, with \$25,000 capital, to manufacture bicycles. Directors—A. L. Lerch, P. A. Powers and J. L. McGraine, all of Buffalo.

The Week's Exports.

Exports of bicycles and cycle material from the port of New York for week ending November 20, 1900:

Argentine Republic.—3 cases bicycles and parts, \$300.

Azores.—2 cases bicycle material, \$24.

Alexandria.—3 cases bicycles, \$15.

Arnheim.—1 case bicycles, \$15.

British Guiana.—1 case bicycle material, \$10.

British East Indies.—99 cases bicycle material, \$5,265.

British Possessions in Africa.—5 cases bicycle material, \$320.

British West Indies.—43 cases bicycles, \$1,581; 14 cases bicycle material, \$421.

Brazil.—19 cases bicycles, \$330; 4 cases bicycle material, \$100.

Bremen.—4 cases bicycle material, \$210.

British Australia.—28 cases bicycles, \$1,822; 52 cases bicycle material, \$2,203.

Copenhagen.—341 cases bicycles, \$6,844; 202 cases bicycle material, \$6,924.

Christiania.—2 cases bicycles, \$39.

Cuba.—4 cases bicycles, \$102; 6 cases bicycle material, \$15.

Cadiz.—3 cases bicycles, \$141.

French West Indies.—2 cases bicycles, \$50.

Gothenburg.—1 case bicycles, \$30.

Hamburg.—1 case bicycles, \$40; 31 cases bicycle material, \$1,517.

Harve.—7 cases bicycle material, \$206.

Helsingfors.—6 cases bicycles, \$130.

Japan.—7 cases bicycles, \$150; 24 cases bicycle material, \$950.

Liverpool.—7 cases bicycles, \$225; 2 cases bicycle material, \$116.

London.—3 cases bicycles, \$78; 5 cases bicycle material, \$191.

Lisbon.—5 cases bicycle material, \$145.

Lausanne.—2 cases bicycles, \$74.

Moscow.—2 cases bicycles, \$156.

New Zealand.—35 cases bicycles, \$1,318; 13 cases bicycle material, \$426.

Odessa.—1 case bicycles, \$30.

Porto Rico.—13 cases bicycle material, \$208.

Philippines.—26 cases bicycles, \$1,225; 14 cases bicycle material, \$727.

Rotterdam.—18 cases bicycles, \$451; 12 cases bicycle material, \$390.

Southampton.—5 cases bicycle material, \$455.

Siam.—2 cases bicycles, \$50; 1 case bicycle material, \$53.

Stockholm.—1 case bicycles, \$17.

Post yourself on Motocycles. Study up on the cycle of the future. "Motocycles and How to Manage Them" will help you amazingly. The illustrations show the "insides" of the motor and the text explains. For sale by The Goodman Co., New York. Price 75 cents.

"More Mobile" is the lovely title of a new spring frame bicycle which is just making its appearance on the other side; the machine depends on the use of flat steel for its elasticity.

The Week's Patents.

No. 661,511—Acetylene gas lamp. Edward C. Fowler, Bristol, Conn., assignor to the Bristol Brass and Clock Company, same place. Filed October 28, 1899. Serial No. 735,048. (No model.)

No. 661,563—Handle-bar. William F. Stockford, South Bend, Ind. Filed April 4, 1900. Serial No. 11,524. (No model.)

No. 661,601—Elastic bicycle tire. Charles G. Fawkes, Denver, Col. Filed May 22, 31, 1897. Serial No. 646,604. (No model.)

No. 661,614—Vehicle tire. Arthur H. Marks, Akron, Ohio, assignor to the Diamond Rubber Company, same place. Filed March 31, 1900. Serial No. 10,930. (No model.)

No. 661,630—Bicycle. Arthur M. Allen, New York, N. Y. Filed June 16, 1897. Serial No. 641,061. (No model.)

No. 661,671—Tire or other valve. George H. F. Schrader, New York, N. Y. Filed April 7, 1897. Serial No. 631,082. (No model.)

No. 661,672—Tire or other valve. George H. F. Schrader, New York, N. Y. Filed July 31, 1897. Serial No. 646,604. (No model.)

No. 661,673—Tire and valve attacher and valve therefor. George H. F. Schrader, New York, N. Y. Filed April 15, 1899. Serial No. 713,098. (No model.)

No. 661,734—Acetylene gas generating lamp. Alfred C. Einstein, St. Louis, Mo. Filed August 21, 1899. Serial No. 727,987. (No model.)

No. 661,810—Wrench. Frank Mossberg, Attleboro, Mass., assignor to the Frank Mossberg Company, same place. Filed September 11, 1900. Serial No. 29,631. (No model.)

No. 661,887—Automatic tire inflating device. Thomas H. McCauley, Port Arthur, Canada. Filed February 21, 1900. Serial No. 6,047. (No model.)

No. 661,939—Velocipede. Max van Gulpen, Mulheim-on-the Rhine, Germany. Filed June 26, 1899. Serial No. 721,916. (No model.)

An Expanding Bottom Bracket.

Considerable merit is possessed by an eccentric bottom bracket brought out by an English firm. The eccentric is in one piece and is formed with two flanges, one at each end, by being reduced in the centre. A segment of about one-sixth of the disc is nearly divided right through the flange. A hole is drilled right through the flanges and extensions. A coned pin on being screwed up expands the segments on both sides and firmly locks the eccentric into the bracket shell. It will be thus seen that whereas most makers lock their eccentrics by contraction, the plan expands the eccentric against the bracket shell. By using an eccentric bracket numerous advantages are claimed, among which are chain wheels always in line and back wheels always in centre of forks.

Stoves appear to be the popular sideline of the English cycle dealer; in this country phonographs undoubtedly occupy a corresponding niche.

How Tires Lose Their Merit.

To judge by the complaints that are heard on all sides, the pneumatic tire has ceased to be an air cushion, or, at least, to absorb vibration to anything like the degree it formerly did.

The pneumatic tire, says an English writer, is in present conditions as good as worthless for the purposes for which it was introduced. When the air tire was invented, men who had been riding solids for years were amazed at the change. It seemed as if they had suddenly found a means of being borne along through the air. It reminded them of the descriptions balloonists have given of the sensation of drifting through space unconscious of the slightest jar. Men who could scarcely stand the strain of rattling their bones over the rough setts of city streets found themselves able to fly over them, scarcely conscious that they were touching earth at all. That was the difference between the solid tire and the pneumatic, and the whole world recognized it.

Now, after twelve years' experience, we are told that the vibration experienced in the case of pneumatics was much more marked than that resulting from solids! What is the reason? Simply this, that the world has gone mad after small tires and hard tires. The craze must have been carried to a strange pitch when the vibration, which was condemned as a bogey in the old solid days, is now trotted out as a disagreeable reality in connection with the pneumatic—and that by men who ought to know all about it.

There is food here for serious reflection, and the sooner some one weans the public back to common sense in the matter the better will it be for the public and all else concerned. I never experienced this disagree-

able sensation, because I never went in for racing tires, nor did I think it necessary to blow those I had up to the bursting point. It was natural that we should have to pay a price for the evolution of the pneumatic tire in regard to points of convenience, but this seems to be too high a price.

Does Advertising Pay?

Anything but creditable to an undesigned tire concern is the story told by a resident of the Pacific Coast of the result of his application to this enterprising (?) firm.

"In these days, when one of the burning questions before business men is 'Does advertising pay?' I thought perhaps the experience of one a long way from the headquarters of most of the large advertisers might interest you," says this observer.

"Seeing repeated insertions of the announcement of a bicycle tire that was evidently a new departure in that line, I wrote asking if there was an agency here, and in event of there being none that full particulars, with prices, delivered here, should be sent. In reply I received a very cheaply printed handbill (it could not be called a circular) and a letter stating that there was no agent in this city, but that if I would write to a firm in another part of the State I could find out all about it. No prices were quoted. It occurred to me that the manufacturers might have referred my letter direct to their agent and saved my writing another.

"However, as I had not quite given up hope that I might get the information wanted, I wrote the second letter. After a delay of several days I received an almost illegible carbon copy of a letter that had been sent to some one else, with my name inserted above, giving me about half the information I had asked for. Life seemed too brief to pursue the matter further.



ALL
SORTS of BELLS
for
ALL
SORTS of PEOPLE

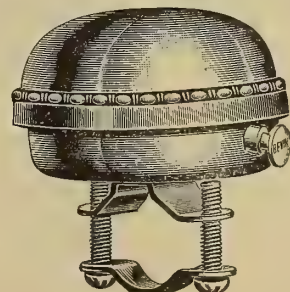
And
THE FACT
that we've been making bells for
58 YEARS

and have
a reputation to maintain,
assures

GOOD GOODS
AT THE
RIGHT PRICES.

Write for them.

BEVIN BROS. MFG. CO.,
East Hampton, Conn.
(Business founded 1832.)



THE CUSHION FRAME READ

What others can do YOU can do.

HYGIENIC WHEEL CO.,
220 Broadway, New York.

Detroit, Mich., Oct. 15th, 1900.

GENTLEMEN:—

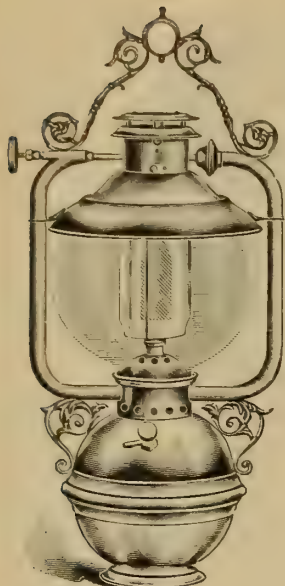
I have sold at RETAIL HERE in DETROIT during the past season UPWARDS of THREE HUNDRED CUSHION FRAME BICYCLES. Never before in my fifteen years experience as a bicycle dealer have I handled goods that have appealed more quickly to public fancy nor have proven more permanently satisfactory than Cushion Frame bicycles. In my opinion the Cushion Frame is the greatest practical invention in the make-up of a bicycle since the advent of the pneumatic tire. IT IS DOING MORE TO POPULARIZE CYCLING than any other modern improvement. I FIRMLY BELIEVE that the STANDARD WHEEL OF THE FUTURE will be the CUSHION FRAME.

Very sincerely yours,
WM. E. METZGER.

Mr. Metzger has sold all the Cushion Frame bicycles above noted at prices ranging from \$50.00 to \$80.00. Don't you think there is money in handling Cushion Frame models?

Write your manufacturers about them.

NOTE:—Cushions are attached only to HIGH GRADE BICYCLES.



Outdoor.

THE NULITE

750 CANDLE POWER

ARC ILLUMINATORS

Produce the finest artificial light in the world
SUPERIOR TO ELECTRICITY OR GAS
CHEAPER THAN KEROSENE OIL

20th Century Revolution in the Art of Lighting

They darkness into daylight turn,
 And air instead of money burn.

No Smoke. No Odor. (No Noise. Absolutely Safe.

They are portable. Hang them anywhere.

WE ALSO MANUFACTURE

STABLE LAMPS PENDANTS WALL LAMPS
 CHANDELIERS, STREET LAMPS, ETC.

The BEST and only successful

Incandescent Vapor Gas Lamps

made. They sell at sight. Nothing like them.

A SNAP FOR BICYCLE DEALERS.

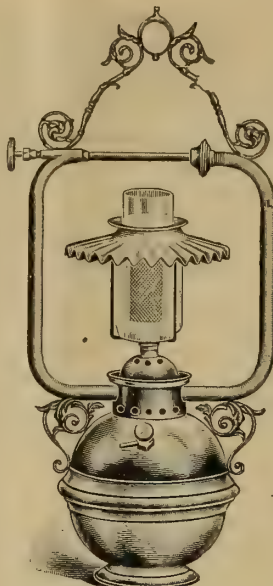
Agents wanted everywhere.

Write for catalogue and prices.

CHICAGO SOLAR LIGHT CO.,

56 FIFTH AVE.,

CHICAGO, ILL.



Indoor.



HERE IT IS!

The Melvin
 Automatic
 Coaster
 and Brake.

Thoroughly reliable, having been
 tested for two seasons.

Write for
 catalogue and
 prices.

F. M. SMITH & BRO., - St. Paul, Minn.

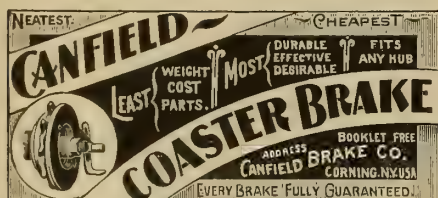
PATENTS GUARANTEED



Our fee returned if we fail. Particulars and our book "How to Secure a Patent" sent free. Patents secured through us are advertised for sale at our expense. Send sketch and description of your invention and we will tell you free whether or not it is patentable.

CHANDLER & CHANDLER
 Registered Attorneys,
 906 F Street, Northwest,
 WASHINGTON, D. C.

Many have made fortunes from simple inventions.



L. R. HALL

Enameling and Nickeling Co.

ENAMELING, NICKEL-PLATING

and VULCANIZING for the trade.

Carriage Tires
 Our Specialty.

4 PORTLAND STREET
 BOSTON.

HIGH GRADE

wheels must have the
 best equipments.

There is nothing that gives more value for
 the money than the use of the

MORSE TWIN ROLLER CHAIN



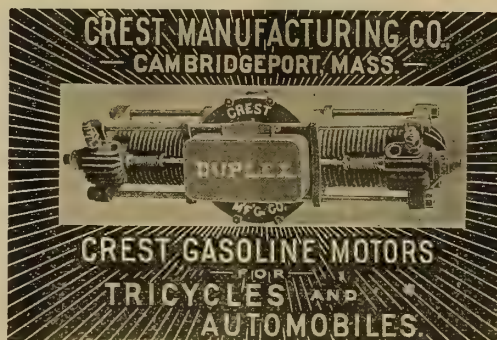
NOISELESS IN MUD, WATER OR
 DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless
 Rocker Joints. Insist on having the
 Morse Twin Roller. Fits regular
 sprockets.

Send for Catalogue and
 Trade Price to

Morse Chain Co., Trumansburg, N. Y.

CREST INDESTRUCTIBLE SPARKING PLUGS,
 Guaranteed. Price \$2.00.



THREE, FOUR AND FIVE HORSE-POWER MOTORS.
 Immediate Delivery.

Sheet Steel Bicycle Parts.

All Kinds of Metal
 Stamping

THE CROSBY COMPANY, Buffalo, N. Y.

Gormully Inventory Filed.

An inventory filed last week in the Chicago Probate Court by A. Gormully and Edwin C. Bayley, executors of the estate of the late Richard P. Gormully, shows the estate left to be almost \$1,000,000. The real estate is valued at \$101,000, of which all but \$1,000 is situated in Chicago.

The personal property, consisting of cash, bonds, securities and other forms of property, is valued at \$708,784.98, of which \$33,313.15 is cash on deposit in the National Bank of the Republic. The securities are for the most part rated good.

A Health Resort.

Excelsior Springs, Mo., on the Kansas City line of the Chicago, Milwaukee & St. Paul Railway, has become one of the leading all-the-year-around health and pleasure resorts in the United States. The use of its waters has benefited a great many sufferers.

The Chicago, Milwaukee & St. Paul Railway has just issued a finely illustrated booklet, describing the resort and telling of its advantages, which will be sent free on application to Geo. H. Heafford, General Passenger Agent, Chicago, with two-cent stamp inclosed for postage. ***

HAND AND FOOT PUMPS,

Oilers, Repair Tools,
 Valves, Name-plates, etc.

Spelter Solder

Sheet Brass,
 Brass Wire and Rods.

SPECIALTIES to order
 MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn.
 Depots: 210 Lake St., Chicago.
 423 Broome St., New York.

Have you investigated the

"FLEMING"

Hydro-Carbon Motor?

We build 1 1/4 H. P. Motors, air-cooled; 2 H. P. Motors, air-cooled; 2 3/4 H. P. Motors, air-cooled; 4 H. P. Motors, water-cooled.

If You are Building Motocycles or Automobiles

write for prices and particulars of the
 "FLEMING" Motor to

FLEMING MANUFACT'G CO., 93, 95, 97 Elizabeth St., New York City.

Or to our agents, E. A. Brecher & Co., 95 Reade St., New York; Geo. N. Greiss, 2128 N. Second St., Philadelphia, Pa.; W. P. Weaver, 516 State St., New Haven, Conn.

Manila is Cycle Mad.

Instead of there being any abatement in the craze for bicycles at Manila, it is said to be on the increase. One dealer is reported as asserting that he sold more than 3,000 machines in the last year, and he is preparing to put up a track that will cost in the neighborhood of \$50,000 Mexican.

The Filipinos appear to have gone crazy over the bicycle. Men, women and children may be seen rolling and tumbling about every street boasting a decent pavement, vainly endeavoring to learn to ride. It is hard to imagine a more comical picture than that presented by a Filipino belle mounted on a balky wheel, in all her flowing dresses and heelless shoes or slippers. Some of them have learned to ride very well, and girls have even been seen on tandems.

Every evening after the crowd of carriages has left the Luneta, the cyclists swoop down in a bunch and take possession of the popular driveway. They stay there after dark and spin round and round under the electric lights. Racing is all the rage, and before the wet season set in a well organized club had managed to build a fair track, but now the whole inclosure has one or two inches of water over it.

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

GASOLENE MOTORS

FOR

Bicycles, Vehicles and Launches**AIR COOLED AND WATER JACKETED****ACCESSORIES AND PARTS**

ALSO

Complete Sets of Castings and Working Drawings**LOWELL MODEL CO.****Box 292 LOWELL, MASS.**

All American wheelmen who desire to keep themselves posted upon matters concerning the cycle in Europe, its trade, mechanics, and sport, should subscribe to

THE CYCLIST
AND BICYCLING AND TRICYCLING TRADES REVIEW.

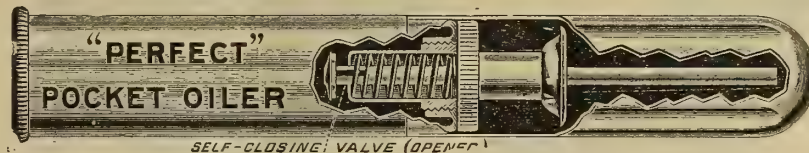
The only recognized authority of English trade and manufacture. Sent post free to any part of America for one year, \$3.25. American manufacturers having novelties in machines or sundries to introduce should advertise in

THE CYCLIST.

Terms on application to

ILIFFE SONS & STURMEY, Ltd.,
19 Hertford Street, Coventry, England.

Members of the American Trade visiting England are invited to call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street, Ludgate Circus, London, E. C.

"PERFECT" OILER.**25c.**

A few of MANY UNSOLICITED Testimonial Letters.

"WE VOTE IT A SUCCESS."—Pope Mfg. Co., Hartford, Conn.

"WE ARE MUCH PLEASED WITH THEM."—Warwick Cycle Mfg. Co., Springfield, Mass.

"THEY GAVE THE BEST SATISFACTION OF ANY OILERS WE SOLD."—Keller & Walker, Moline, Ill.

"JUST THE THING I HAVE WANTED FOR YEARS."—F. E. Worth, Indianola, Iowa.

"THE ONLY OILER THAT DOES NOT LEAK."—W. D. Anderson, Dallas, Texas.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.**MORROW**
COASTER AND BRAKE.**Over 100,000 Sold**
Last Year.**Everyone Giving Satisfactory**
Service.**Make Your Cycle Saleable and**
Desirable by Fitting it with
the MORROW.**ECLIPSE MFG. CO., ELMIRA, N. Y.****NEW YORK BRANCH:**
105-107 Chambers Street.

If
You are Interested
in Automobiles,

THE MOTOR WORLD

Will Interest You.

IT'S NOT LIKE THE OTHER KIND.

It's readable,
and you can understand what you read.

Published Every Thursday
at 123-5 Tribune Building, New York.

\$2 per Year.

Specimen Copies Gratis.

YOU CAN'T TELL THE AGE OF A BICYCLE

by the teeth of its sprocket but you can tell its quality by the chain that runs over them.

If it's a Duckworth

you may be sure that the makers of the bicycle are not building on the Cheap John plan. If the bicycles you handle are not fitted with Duckworths, specify that chain when you order. If it is refused you, you will have a certain cue to the quality of the wheel.

In the Duckworth factory, it is not how cheap, nor how many, but how good. Write for catalogue and prices.

DUCKWORTH CHAIN & MANUFACTURING CO., Springfield, Mass.Selling Agents, **BRANDENBURG BROS. & WALLACE**, New York and Chicago

NEVER LEAK

STOPS LARGE PUNCTURES.

This is the only fluid that can be legally used in pneumatic tires. Suits now pending.

BUFFALO SPECIALTY MFG. CO.,
Buffalo, N. Y.



THE LAKE SHORE ROUTE

BETWEEN

Chicago and Milwaukee.

Frequent fast express trains at convenient hours.

All agents sell tickets via this popular route.

CHICAGO & NORTHWESTERN R. R.

TICKET OFFICES:

368 Washington St., Boston.
461 Broadway, New York City.
193 Clark St., Chicago.

The Best Advertising for the
Irish Trade is

THE IRISH CYCLIST

Specimen copy and advertising rates on
application rates to

R. J. MECREDY & SON, Ltd., Proprietors,
49 Middle Abbey St., DUBLIN.

AUTOMOBILES

WHAT ARE THEY AND
WHAT WILL THEY DO?

Is completely answered without the use of technical language and a reliable
directory of makers of motor-vehicles and their parts is given in a special number of

THE MOTOR AGE

THE AUTOMOBILE AUTHORITY OF AMERICA

Send us cards for Special Number of Motor Age
324 Dearborn Street CHICAGO



Through Train and Car Service
effect April 29, 1900.

TWO FAST TRAINS

	"Chicago" Special Via Lake Shore.	"North Shore" Special Via Mich. Cen.
Lv. Boston	10.45 A.M.	2.00 P.M.
Due Albany	4.10 P.M.	7.35 "
" Syracuse	7.55 "	11.40 "
" Rochester	9.40 "	1.30 "
" Buffalo	11.40 "	
" Toledo	5.55 A.M.	
" Detroit		8.15 "
" Chicago	11.50 "	4.00 P.M.

The Finest Pullman Cars will be run on these trains.
Tickets and accommodations in sleeping cars for sale at City
Office, 366 Washington Street and at South Station.

A. S. HANSON, General Passenger Agent.

GOOD WORK GUARANTEED.

D. PATTINSON,
rear 48 Stanhope St., Boston.
(Opposite former location.)

EXPERT REPAIR WORK
OF ALL KINDS ON
BICYCLES AND AUTOMOBILES.
(Official L. A. W. Repair Shop.)

The Thorndike

Boylston St. and Park Square,

On the border of the most famous BOSTON.
Public Garden in America.

G. A. DAMON. J. L. DAMON. J. L. DAMON, Jr.

SANGER ADJUSTABLE HANDLE BAR.

"THE ORIGINAL AND ONLY."

Patented October 10, 1899.

SANGER HANDLE BAR AND PLATING CO.,
Milwaukee, Wis.



Via Rockford, Freeport, Dubuque, Independence,
Waterloo, Webster City, Fort Dodge, Rockwell
City, Denison and Council Bluffs.

DOUBLE DAILY SERVICE TO OMAHA

Buffet-library-smoking cars, sleeping cars,
free reclining chair cars, dining cars.
Tickets of agents of I. C. R. R. and connecting
lines. A. H. HANSON, G. P. A., Chicago.

BOSTON & MAINE R. R.

**LOWEST RATES
FAST TRAIN SERVICE**

BETWEEN

Boston and Chicago,

**St. Louis, St. Paul,
Minneapolis**

and all points West, Northwest, Southwest.

Pullman Parlor or Sleeping Cars on all
Through trains.

For tickets and information apply at any
principal ticket office of the company.

D. J. FLANDERS, Gen'l Pass. & Ticket Agt.
BOSTON.

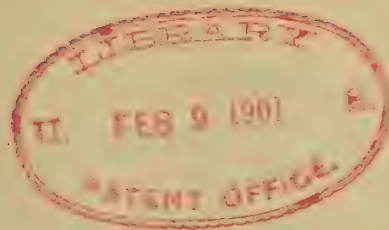
ASPHALT PAVEMENTS

THE STANDARD
PAVEMENT OF
AMERICA

THE BARBER ASPHALT PAVING CO.,

Endorsed by the L. A. W. Everywhere.

No. 11 Broadway, New York.



The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., November 29, 1900.

No. 9.

A. B. C.'S PRICES

Figures in Full for 1901 Officially Announced—No Important Changes.

The complete price-list for 1901, of the various lines of the American Bicycle Co. is now available. The figures as officially given out are as follows:

Columbia chainless, \$75; chain, \$50. Hartford, chain, \$35. Vedette, chain, \$25.

Spalding, chainless, \$75; chain, \$50. Nyack, chain, \$25.

Crescent, chainless, \$60; racer, \$50; chain, \$35 and \$25; Juvenile, 24 in. \$22.

Stearns, chainless, \$75; racer, \$60; chain, \$50, \$40 and \$25.

Rambler, chainless, \$60; racer, \$50; chain, \$40 and \$35; Ideal, chain, \$25.

Cleveland, chainless, \$75; chain, \$50; Westfield, chain, \$40; Niagara, chain, \$25.

Imperial, chainless, \$60; chain, \$40 and \$30. Monarch, chainless, \$60; chain, \$35 and \$25.

Barnes, chainless, \$75; chain, \$50 and \$40. Featherstone, chainless, \$60; chain, \$40, \$35 and \$25.

Tribune, chainless, \$75; chain, \$50 and \$40.

Crawford, chain, \$35 and \$25; Juvenile, 26 in., \$25; 24 in. \$22; 20 in. \$20.

Philadelphia to Have a Show.

Following the New York Show in January, Philadelphia will have a Cycle and Automobile Show of its own. No specific date has been set, but the affair is being promoted by the Philadelphia Cycle Board of Trade, composed of the veteran dealers of the city. As the cycle show idea originated and was first exploited in the Quaker City, the projectors will not lack the necessary experience.

Cork Grips Advance.

The price of cork grips has advanced 20 per cent—the result of an agreement between the principal grip manufacturers.

Will Enter the Saddle Game.

With the organization of the Reading Saddle & Mfg. Co., for which an application for a charter will be made on December 3, the Pennsylvania town will once more become a factor in the saddle manufacturing game.

The company is composed of Miller M. Deem, John L. Ennis, Edgar L. Fulmer, Zug L. Brown and William Rick, and will occupy the building formerly occupied by the American Saddle Co., 318 Maple street.

The new concern will manufacture bicycle saddles, toolbags, pedals and other articles of steel, leather, wood and iron, and will retain all of the principal hands employed by the American Saddle Co. Work will be given to about fifty hands at the start. They will continue the nickel plating works, as heretofore, and have secured the plant as operated by the American Saddle Co.

Double Tube Drawn into the Fight.

Double tube tires have been drawn into the tire controversy which grew out of the upset of the Tillinghast agreement on single tubes. One or two new double tubes have already seen the light, several others are almost ready for marketing and makers who for years have displayed little or no interest in that type of tire have taken it up and are pushing it with unwonted zeal. In some instances it is freely stated that the double tube is being used as a bait or "come-on" or buffer for other interests. However that may be, developments of still another nature are not unlikely at any time and in a quarter that has had no part in past disagreements.

Recent Incorporations.

Indianapolis, Ind.—The C. G. Fisher Company, to deal in bicycles, with \$15,000 capital. Directors—Carl G. Fisher, Charles Koehring and George Koehring.

St. Catharines, Ont.—Co-operative Cycle and Motor Company, Limited, with \$250,000 capital. Provisional Directors—William G. Nott, Percy E. Verity and Charles E. Verity, Brantford; James McBurney, Henry Hunter and James Ross, Toronto, and James A. Coulter, Ingersoll.

AFTER GOODYEAR

Single Tube Co. Seeks to Cancel Its License, and Goodyear Goes to Court.

Since The Single Tube Tire Co. was defeated in the Ohio courts in its attempt to compel The Goodyear Tire and Rubber Co., of Akron, O., to hold to the Tillinghast price scale, which failure was followed by an upset in the single tube tire market, there has been considerable curiosity felt regarding the next move to be made.

Under its agreement with the licensees, The Single Tube Tire Co. is bound to enforce all the clauses of the agreement, including the one relating to prices; as, however, the action of the Ohio Courts prevented this being done in the way originally contemplated, there was no recourse but to proceed to the extremity of cancelling The Goodyear Co.'s license.

This The Single Tube Tire Co. has done, and as a result the Goodyear people are now on the defensive, instead of, as before, in the role of plaintiffs.

Doubt has been set at rest by the action of The Goodyear Tire and Rubber Co., of Akron, O., in applying to the United States Circuit Court at Cleveland, for an injunction against The Single Tube Tire Co.

The injunction was wanted pending a suit to restrain The Single Tube Tire Co. from cancelling a license granted the Goodyear Co.

Judge Day refused the injunction, but allowed a temporary restraining order. This came up for hearing on Monday, and the matter is being held under advisement.

The Goodyear Co. claims that its moulds, machinery, etc., are adapted to the making of single tube tires, and that it would be an intolerable hardship to it were the license cancelled.

GREAT HILL CLIMBING

Marvellous Performances of the Motorcycles in the French Trials.

PARIS, Nov. 13.—The trials being held here now and then seem to have no other result but to give makers a chance of bringing out big and powerful motors which may be expected to do something sensational under special conditions, but are hardly the things that are required by the average cyclist. The two and one-quarter horsepower motor is usually quite enough for the ordinary cyclist, who finds that this power is as much as he can conveniently manage, and it enables him to travel along at as high a speed as he cares to go. But the professional is not satisfied unless he is on a machine propelled by a motor of five or six horsepower, which fires him along like a shot out of a gun.

BÉCONNAIS BEATS ALL.

One of the cleverest manipulators of the motorcycle is Béconnais, who did some remarkable performances at the Gaillon hill climbing trials on Sunday. The gradient to be negotiated had a length of a kilometre—1,093 yards—and rises 9 per cent over the greater part of the distance. One of the conditions of these annual trials is that all the runs shall be made from a standing start at the bottom of the hill, but with the increase in the power of the motor the professionals, who have to win for the credit of the makers, one way or another, refuse to handicap themselves by pedalling these big motors on the up grade. Last year several of them were stuck through being unable to move their machines. However fast they may travel at the top, they can never make up for the time lost at the bottom, and the smaller motors thus have a very good chance of beating them. Béconnais, Teste and the other professionals would only take the hill from a flying start, and the way Béconnais went up the gradient with his six horsepower Soncin motor was a revelation. Sitting right back on the petrol tank, and crouching down over the exaggeratedly dropped handles until his back was on a level with the top of the handlebar, so as to avoid wind resistance, Béconnais went up the hill like a rocket, steering his way by popping his head up and down like an automaton. He made two attempts, doing the 1,093 yards of gradient first in 0:58 1-5s. and then in 0:55 2-5s. These were the sensational performances of the day, and altogether pulverized the times of other cycles and vehicles, the next best time being that of Teste on a De Dion tricycle, who took 1:27 3-5 to climb the hill.

WATER COOLED DE DION TRICYCLE.

The novelty of these trials was the new De Dion tricycle, with an ordinary two and one-quarter horsepower motor, which was fitted with a throwing out gear and a water jacket for the combustion chamber. These

are very important developments, as they overcome two of the great difficulties that motor cyclists have always had to contend with—that is to say, the labor and trouble of bringing the piston to the point of compression and giving it a sufficient number of revolutions to enable it to overcome the inertia of the machine and rider by means of the pedals every time a start has to be made, and the liability there is of the motor gripping when it becomes hot or when the lubrication is not so good as it ought to be. Of course, the seat of heat development in a motor is the combustion chamber. The rapid movements of the piston generate little or no heat when it is properly lubricated, and the air ribs around the cylinder are always sufficient to radiate any heat that may be produced in this way. The heat developed by the explosions in the combustion chamber is only partly communicated to the cylinder, so that in the ordinary motor special ribs or flanges have to be cast on the top so as to give a big radiating surface at the point where the explosions take place.

ADVANTAGES OF WATER COOLING.

Metal, however, is quite insufficient as a conveyer of heat unless it be possible to use a large mass, which would, of course, enormously increase the weight of the motor, and, despite the ingenuity of makers in devising cooling ribs of different systems, it has been found impossible to avoid any liability of the motor gripping. Cycle makers have always hesitated to use water cooling, as they feared that it would result in a complication and encumber the machine somewhat unnecessarily, but in the new De Dion tricycle this has been done in an apparently simple and effective way. The combustion chamber only is cast with a water jacket, and the tank, suspended between the frame, is divided to carry several quarts of water, this being cooled as it leaves the motor by a short length of tube, with radiating ribs placed just behind the saddle. Still more important is, of course, the throwing out gear, which allows of the motor running independently of the machine. This gear is operated by a brake lever on the handlebar. When the lever is brought up to a certain point it applies the band brake on the driving axle, and a further pressure throws the motor out of gear, so that the two operations are nearly simultaneous. These two very necessary improvements will do a lot to popularize the De Dion tricycle, and will be highly appreciated by motocyclists, who will find that the system will dispense with a good deal of trouble that has taken some of the gilt off motocycling. The new tricycle was ridden in the trials by the professional Bardin, who was the only one to insist upon the standing start. Without using the pedals he climbed the hill in 1:51 1-5, which may be regarded as a creditable performance.

HOW THE MOTOR BICYCLES CLIMBED.

There were only about half a dozen motor bicycles competing, the majority of them being of the Werner and Laumaudière systems, the former with the motor on the head

tube and geared on the steering wheel by a leather belt, and the latter by a motor on the down tube and geared in the same way on the rear wheel. The front driver came victorious out of the ordeal, a Werner bicycle reaching the top of the kilometre gradient in 1:48 1-5, a Laumaudière bicycle taking about ten seconds longer. The machines were helped by the pedals over nearly the whole course, so that probably the machines with the highest gears came off best. The old professional cyclist Rivierre had a bicycle of his own design, with a motor on the down tube and geared by a leather belt onto a pulley fixed to the spokes of the rear wheel. The machine had no chain, and the feet rested on supports, so that in starting the driver had either to be pushed or else was obliged to run alongside and jump on when he had got sufficient momentum to start the motor. The performance of this bicycle fully bore out what I said in a previous letter about this type of machine. Rivierre got hopelessly stuck on the hill, but when, later on, I saw him travelling along a road as level as a billiard table he was going at express speed. The quadricycle did well in these trials, a Gustave machine, carrying two persons, doing the kilometre in 1:50 3-5; a Laumaudière motor tandem reached the top in 2:22 3-5.

THE HOUR RECORD RAISED.

The previous motorcycle record for the hour, held by Demester, was beaten to-day by Rigal at the Parc des Princes cycle track, when he covered 1 centimetres 563 metres—44.46 miles—in 58:20, at which moment he was obliged to stop through one of the tubes of his machine giving way. He had already secured an advance on Demester's record of 298 metres, and if it had not been for the accident Rigal would probably have put it up to 74 kilometres. The performance is all the more creditable as he was riding for half an hour in the rain, and those who know what it is to travel on wet cement will be able to appreciate Rigal's pluck in riding at record speed under these conditions.

Hagerstown is Happy.

There is rejoicing in Hagerstown, Md., because of the belief entertained that the Crawford factory, now owned by the American Bicycle Company, is about to enter upon a renewed period of prosperity. Press dispatches state that the factory has been placed practically upon an independent basis for the manufacture and sale of its product. The change was made at a meeting of the managers of the trust in New York recently, and F. B. Whympers, former representative of the trust in London, was made manager.

He has taken charge of the factory, succeeding E. W. Mealey. He has selected a number of agents, who have been put at work in their respective territories already. Juvenile wheels will be manufactured almost exclusively. A vigorous policy has been inaugurated by the new manager, and a speedy revival of business at the factory is expected to follow.

MOTOCYCLES IN ENGLAND

Some Occurrences and Suggestions of Moment—First Break in Price of Motors.

London, November 14.—One of the most noticeable features of the Automobile Club's anniversary run from London to Southsea last Saturday was the comparatively few motorcycles which took part. The daily papers, which have devoted some considerable space to reporting the run, remarked the fact. But, after all, there were a good many well known motocyclists present, including the Hon. C. S. Rolls, who for this occasion deserted his Panhard car; Mr. Charles Jarrott, who last week broke the English hour's motor tricycle track record by covering 42 miles 285 yards, and many others. Jarrott, it is true, was hardly mounted upon a motorcycle, but he rode a machine which was a very near relation. It was a strange looking affair, really the frame of a voiturette with a central seat for one. It was provided with two 5 h. p. motors, but notwithstanding that it was thus somewhat overpowered in proportion to the weight carried, it failed to hold the motor tricycles on several of the hills, and was very easily defeated by a motor tricycle in the time trial up a hill three miles in length, which trial was held en route.

HIGHER HORSE POWER FAILS ON HILLS.

This hill, called Hind Head, is not a steep ascent; it is long, and that is all. The surface is, moreover, excellent, so that I was disappointed in the performance of Mr. Jarrott's strange vehicle. It may be said, and with some truth, that the car cannot come under the category of motorcycles, which contention I freely grant. But this is my point: This vehicle, carrying only one person, was defeated up the hill by a tricycle of exactly one-half its motive power by one minute and three seconds. Surely another 5 h. p. should have been more than sufficient to drive the extra wheel, and the additional weight of the frame and the larger petrol tank! Can it really be the case that these two additions made the great difference in speed, in spite of the greatly increased horsepower of the motors? If so, it is clear that quads will not do, and that here the trade in motorcycles will be mostly in tricycles, with the motor bicycle second. And yet there can be no doubt that the quad is more comfortable than either of the types mentioned.

TROUBLE WITH TRICYCLES.

Quite a number of 2½ h. p. tricycles are now on the road, and in some cases breakdowns are reported, owing to the overheating of the motors. What it will be when the 5 h. p. motors come into the hands of the more or less ignorant public I tremble to think, for, according to rumor, very few of these are to be water-cooled. I am, however, still of the opinion that for the use of the general public a motor of not more than 2 h. p. is ample, more especially if the

machine be provided with a two-speed gear. The high-powered racing motorcycles are absolutely useless here, because nobody may legally put them through their paces except upon the track, which is hardly the place to learn what they can do.

LADIES' MOTOCYCLE WANTED.

At the present moment ladies are taking a great interest in motoring, and it therefore seems somewhat strange that, so far, no manufacturer has seen fit to place a really strong dropped-frame motor tricycle upon the English market. One or two big firms last year brought out dropped-frame motors, but the frames employed were weak, and, moreover, motorcycles were not then so popular or so well understood. Now it takes the average cyclist a comparatively short time to learn to drive a motor, and there is no reason why lady cyclists should not participate in the pastime. In many instances ladies have proved themselves to be more skilful in the use of the bicycle than a great number of male riders, and I should not be at all surprised if, in the end, they take largely to motors. But in order to do this they must have suitably designed machines, which as yet have not been offered them.

MUD GUARDS NECESSARY

Now that the wet weather has come, complaints are being made respecting the inadequate mudguards fitted to most motorcycles. In many cases mudguards are dispensed with altogether, with the natural result that the riders of such machines become terrible spectacles after a trip of even a few miles. But in many instances where guards are employed the width of these is too little, and such alleged protections only seem to scatter the mud more than ever. Mudguards and chaincases are really almost more necessary for a motorcycle than they are in the case of a safety of the usual type, mainly on account of the increased speed at which the motor travels, and also for the reason that the motor gives quite enough trouble in cleaning without having the labor increased by the accumulation of unnecessary road dirt. It is an item which manufacturers should not permit to escape them.

DE DION MOTORS AT \$47.50.

According to an advertisement which has appeared this week, there is at the present time a certain firm in London who are prepared to retail genuine De Dion-Bouton motors complete, with carburetter and silencer, and of 2½ h. p., for the small sum of \$47.50, and if five, ten or twenty motors be ordered at a time further reduction will be made. This seems to be price-cutting with a vengeance, and will do much to alter the conditions of the motor trade. As the advertisement has been pretty freely commented upon by the press, it will show the public what can be done.

Strong and Durable.

Abdurum is the name of a material which is being used in chains by an English maker. Chains so made are said to possess extraordinary strength, the metal being in addition so hard that a file will not touch it.

TRADE IN JAPAN

High Grades Only are Wanted, says a Yokohama Dealer—The Reason for it.

Ernest W. George, of Andrews & George, Yokohama, Japan, was among the visitors in New York during the last week.

Mr. George has been engaged in the cycle trade in the Japanese centre for several years, and, like live dealers everywhere, has long been a subscriber to the *Bicycling World*. When seen by the *Bicycling World* man he was making ready to depart for San Francisco to take the boat home.

Mr. George confirmed what the export statistics have made plain for some time, that cycling interest in Japan is keen and increasing.

Asked the bicycles that were in greatest demand, he replied:

"The best bicycles only. We handle no others, and would not handle cheap stuff if it was called for. The Japanese have small mechanical knowledge or inclination, and want the wheels that will give them the least trouble, and it is to our interest to give them to them. When we sell a wheel we want it to stay sold, and not have it coming back to us. That's why we deal only in the highest grades."

"Then it is the natives that are doing the buying?"

"Yes. There are only about four thousand Europeans out there and forty million natives. The Europeans represent every nationality under the sun, and all of them are engaged in business on their own account. We deal with the millions of natives, as you may imagine, and they are better buyers than they are generally given credit for.

"Automobiles? There's just one in Yokohama. It was presented to one of the high dignitaries by an American house, but it is never used outside of the city; the outlying roads will not permit of it.

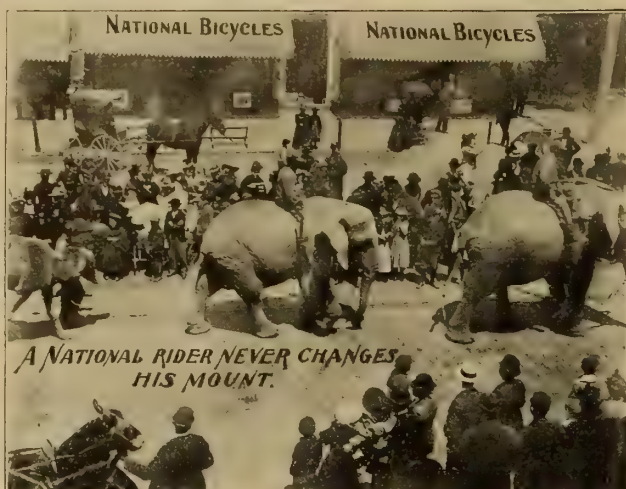
"Are we interested in motorcycles? Indeed we are. But our interest is mainly in motor bicycles; it is only the single track machine that will prove generally practical on Japanese roads."

Wyman Buys Union.

Last week at Needham, Mass., the last chapter in the history of the Union Bicycle Mfg. Co., of Highlandville, Mass., once such a well known figure in the trade, was written. The machinery and personal property of the concern were sold by Receiver Arthur E. Denison to H. W. Wyman, of Worcester, Mass. The machinery, etc., will be removed to the latter place. Mr. Wyman was long one of the reputed backers of the Union company.

Youse Gets Packer.

G. D. Packer, the proprietor of the Packer Cycle Company, of Reading, Penn., has sold the stock, furniture and fixtures and goodwill of this concern to E. S. Youse, the well known bicycle dealer of that town. The latter will continue the manufacture of Packer bicycles as heretofore.



A PROFITABLE BUSINESS.

FROM the time we began to manufacture NATIONAL BICYCLES we have consistently followed the idea of building good bicycles only and selling them at a fair price.

We have sold these same bicycles here at retail in the face of competition as sharp as has been encountered in any retail market, and have succeeded in making our retail department a profitable enterprise.

Hundreds of our oldest trade customers have got the same results from handling NATIONALS in the same way that we do. We never knew of a NATIONAL dealer who was dissatisfied with the bicycle, or who, if he used the right methods, did not show an annual increase in his sales.

NATIONAL BICYCLES have the inherent merits which are worth pushing and building a business on.

If the NATIONAL BICYCLE is a profitable article for hundreds of other dealers to sell, would it not be so for you?

Get Chapter III of our "Talks." It may interest you, and our traveler certainly will if you want to see him.

NATIONAL CYCLE MFG. CO.,

- -

BAY CITY, MICH.

GET INTO GEAR

and let
your gear
be
high gear

Orient

Aside from the motorcycle push, it is the only plausible proposition of the coming season and the Orient Bicycle is the only wheel that gives its dealers this 19th Century talking point now—this week—today.

There are shoe sellers who fit their shoes to your feet, and then there are others who fit your feet to their shoes.

The latter service has been the best kind that bicycle buyers have had in the past, but now the

TAILORED ORIENT

is fitted to the buyer—that is, gear and cranks are supplied to accommodate leg measurement. And the same individual attention is applied to the

ORIENT MINUTE MAKER

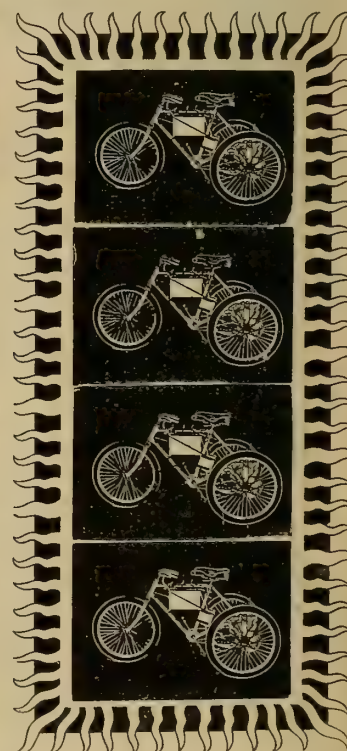
the racing wheel which, like the Orient 1.30 and Orient Leader is destined to destroy time until a mile a minute has been recorded.

Both are ready for winter exploiting.

Get into gear—NOW.

WALTHAM MFG. CO., Waltham, Mass.

Bicycles, Motorcycles,



Runabouts, Automobiles.

THE BICYCLING WORLD

FOUNDED 1877
and MOTOCYCLE REVIEW

In which is Incorporated
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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, NOVEMBER 29, 1900.

This is the day for thanksgiving. If your business was as good or better than you anticipated, give thanks. If it was not as good as you expected, give thanks that it was no worse.

Lesson of the Philippines.

The development of the American bicycle in the Philippines is not the least of the unexpected results of our war with Spain and our possession of those islands.

It was but a little more than a year ago that we were assured by some of those on the ground that the bicycle "stood no show" whatever in the distant archipelago. The climate, we were told, was too warm and too wet, the roads too vile and the natives too lazy, indolent, benighted and poverty stricken for the bicycle to attain even a remote degree of popularity. Yet within the last ten months there have been shipped to the Philippines from these shores bicycles to the value of some \$50,000. The natives are described as "bicycle mad" and a cycle track

in Manila is in prospect. And all this while the bullets are still doing their deadly work.

It is an instance which shows how the bicycle conquers all kinds and classes of people, as it also holds promise that even China and the other "benighted" countries with their countless millions may yet provide a harvest for our cycle makers and one many times richer than that now being gathered in the Philippines.

It is in the Orient that the path of the bicycle must make its way. The country teems with people such as we imagined the Filipinos to be and "we'll win them yet, you bet."

It is faith of this kind that inclines us to believe that the "Oriental Opening," detailed in another column, should prove wide enough for the American bicycle to insert an entering wedge which may reach untouched, undeveloped and unsuspected veins of wealth.

The lesson of the Philippines amply justifies such faith.

Attracting Holiday Trade.

It is none too early for the wideawake dealer who is bent on making the most of his opportunities to begin planning for holiday trade.

The fact that trade of the sort is not particularly abundant is not sufficient reason why the effort should lose any of its force.

It is a time of the year when every one in business in whom the shopkeeping instinct is really alive should make an especial effort to attract some of the extra volume of money that the approach of Christmas causes to circulate.

In the past the bicycle dealer has obtained little, if any, of it, mainly because he was saturated with the belief that his wares were unseasonable, and that therefore the results would not justify the means.

It was shallow reasoning that has no place in the art of retailing.

Whenever there is extra money circulating it is the simplest rule of trade to make an effort to obtain a share of it.

With practically all of the 1901 models already in evidence, the dealer has abundant material to place before the holiday purchaser.

Perhaps the juveniles are the best models to advance at this season, with women's wheels a close second, as it is the child and the woman who are the chief recipients of Christmas gifts.

It is the time, too, when the most may be

made of special features or models. The chainless, the coaster brake, the cushion frame models and even the motorcycle are essentially the wheels that should attract the most attention and make it appear that the gift buyer is giving something out of the common.

It is possible to suggest these things as seasonable gifts through ads. or reading notices in the local papers, or by cards in the show windows, and as the day of actual spending approaches some thought should be given to making the window take on a "Christmas appearance." With so many nicked articles at his disposal it need not require much tinsel, bunting or festoonery to make a display that will attract the passerby.

Practically every other merchant in your town is preparing to do something of the sort. Why shouldn't you?

Revival of Talking Points.

When bicycles fairly bristled with "talking points," and the whole world was agog over them, the trade was—to put it mildly—dubious as to the expediency of discussing them so much.

The more the different features were debated, weighed, balanced, discussed, by riders, prospective purchasers and the maker and dealer, the greater became this doubt.

The bright light of publicity thus cast upon the most minute as well as the most striking costructional features undoubtedly brought about a fiercer competition. Maker vied with maker to produce, and dealer with dealer to expatiate, upon new or striking "points."

The great popularity of the "talking point" was coincident with the period during which the bicycle underwent its greatest improvement. The rapid and marvellous changes which took place from 1892 to 1896 naturally brought forth a multiplicity of the features referred to, and the changes were rung on them rapidly and continuously.

Then, however, began a new era. The process of evolution was nearly completed, yet "talking points" must continue to be evolved.

Consequently, along with many praiseworthy changes came others made solely for the sake of change and to obtain a feature which could be pitted against those seen on rival machines. Each maker was unwilling to stop unless his competitors did, so all were swept along with the stream.

The result was easy to foresee. A reckless and unhealthy rivalry ensued, and was

ultimately participated in by the public as well as the trade. The latter felt the danger, and would have liked to apply the brakes; fear of the effect of doing this alone, however, prevented its being done.

When the slump came the disappearance of "talking points" was an almost necessary concomitant. By tacit, mutual consent—a sort of benevolent and well intentioned conspiracy—a reform was inaugurated, and the public soon took its cue from the makers and dealers and ceased to discuss the features which had once been on every lip.

Of late there has been a tendency to ascribe to this retirement of the "talking point" many of the ills which have afflicted the trade.

How much foundation there is for this belief it is not easy to say. But it is quite plain that the public has had cause for complaint. Few well informed tradesmen will deny that the present year's machines contained less to talk about than those of almost any other year in the history of the trade.

While this is true in the main, however, the indictment does not hold good against all machines. There were plenty of them which contained "talking points"—good ones, judged even by the standards of a few years ago—and they could have been "talked" to considerable advantage.

But it was no longer the fashion to do this, consequently silence was maintained. The maker failed to take the initiative, the dealer remained mute in the presence of the buyer, and the latter ceased to argue with his fellows regarding the superior merits of his machine.

As a natural consequence there is a reaction against this general silence. Too much competition may be a bad thing, but too little of it is certainly no improvement.

There are plenty of "talking points" on the present day bicycles, if attention be but called to them, and many more are appearing on the new patterns.

A concerted effort to call public attention to them cannot but result in good to both maker and dealer.

The Springless Age.

If variety is the spice of life, as the old saw asserts, then the present seems to be a fitting time for the introduction—or reintroduction—of springs.

For the best part of a decade a springless age has been upon us. We tabooed springs of all kinds—first such as were applied to

frames and forks, then those used to make saddles luxurious. We took nearly all of the spring out of our tires by reducing their diameters, and finally removed the rubbers from our pedals.

Thus deprived of all vibration absorbers and shock reducers, we cycled gayly on, happy in the thought that we were no longer hampered with "power eaters," "slowing devices" and the like.

In the course of time, however, our elation has undergone a shrinkage, our self-satisfaction a change. It has been borne upon us—at first slowly and then with such force that deception was no longer possible—that we were not as happy as we might be after all.

It is very probable, therefore, that the cry for relief—which has been raised here and there for some little while—will rise higher and higher.

What the outcome will be—whether drastic measures or others which go only part way will be taken—remains to be seen.

Fancies in Fork Crowns.

Fork crown construction affords material for an interesting study, and peculiar interest is lent to it by the fact that another of the periodical changes appears to be at hand.

Fashion—and usually a fashion not easy to understand—has had more to do with this important part of the bicycle than almost any other. Its vagaries have not been easy to follow. Indeed, it has frequently happened that the direction finally taken was the most unexpected one.

From the curved or arched fork crown to the square one, and then back again, with a host of minute variations for these differing styles; so the pendulum has swung, almost as regularly as clockwork.

The high bicycle had many examples of these two types, all of them, however, fashioned of solid steel, forged or cast. When the safety came in fork crowns followed the old order, each maker designing according to his fancy.

Then attention was directed to this hitherto neglected feature, and changes followed hard after. Hollow crowns made their debut, but still no standard was fixed upon. One maker thought his design as good as—frequently better than—another's and the public quite agreed with him.

Then began the era of "follow my leader," when each maker felt constrained to get in line—once it was made clear which shape was the standard.

The double plate square crown in its many varieties was the first to be accepted as the "proper thing," and it had for a long time a great run. But just when it seemed most secure in the affections of the trade and the public its fall took place.

The arched crown next came in with a rush, and carried practically everything before it. There were a few dissentients in the ranks of the makers, of course, but they were only the exceptions which proved the rule.

For about four years now the sway of the arched crown has been almost absolute. So much was this the case that fork crown shapes have almost ceased to be discussed.

But it looks as if the break up were at hand. New patterns of bicycles are being brought out, many of them without the time honored arch at the top of the fork sides. The list is likely to be swelled as the season advances, and the supremacy of the arched crown promises to shortly become a thing of the past.

In the mean time, what will the new shape be? So far little light has been shed on this interesting subject, the new designs differing greatly.

It is quite probable, however, that an entirely new shape will be evolved.

Which firm will be lucky enough to bring it out?

Liberty That is not Wanted.

We've had some pretty "yellow" journalism on this side of the water, but the new London daily "run on American lines" is almost a libel on even its supposed prototypes.

Our own "yellows" have done some hurt—and some good—but none of them has gone out of its sphere and of itself taken up and boomed the sale of an article to the injury of the industry concerned, shamelessly confessing that in doing so it knew it was working the ruin of many tradesmen.

That sort of thing is not on "American lines."

We doubt if any American print is licensed to engage in a mercantile pursuit; charters are granted for specific purposes, and no newspaper should have the right to injure and interfere with a legitimate industry by the semi-criminal sale of its wares at cut-throat prices.

If the London daily's charter permits such things it is a liberty which a free press in a free country does not enjoy, and which no half-decent journal craves.

THE TRADE JOURNALS

Some Features and Uses as Noted by a Veteran Journalist.

Although they see them fifty-two times per year, I doubt if very many persons connected with the bicycle industry, either in the capacity of manufacturer or retailer, realize what an amount of thought and expense is lavished on their favorite trade paper. They get it week after week, look it over critically for the many interesting items and articles which it contains, most of which they could not possibly get through any other source; carefully scan the advertising pages to see what is offered, both old and new, and then lay it away with never a passing thought of the ways and means that allow for this.

To produce a trade paper which does not belie its name means the expenditure of much thought and care. The news must be strictly up to date, otherwise it is useless.

One has but to look at the trade paper of a few years ago and compare it with one of the present day in order to note the strides which have been made toward perfection. Every topic upon which full and reliable information is essential to buyer and seller is treated in detail, and to make it of any value whatever means a careful revision that is entirely foreign to the ordinary run of publications.

Looked at from a mechanical standpoint, the high-class trade paper is a thing of beauty. Being usually of a generous size and printed on fine paper, the highest efforts of the printer's art are possible, and its contents are therefore made pleasing alike to the eye and to the mind; and all this costs money. Several of the American trade journals, as such, have no superiors in the world, either in regard to the scope and value of the information furnished to the branches of the industry they represent or the commanding position they have attained in class journalism. And it may be safely asserted that no business of any importance could now possibly afford to be without an organ devoted to its interests.

There are comparatively few instances where any number of a paper like the *Bicycling World* fully completes its mission of usefulness. It is read by the head of the house receiving it, perhaps by two or three of his business associates, occasionally by some of the office men, and then is too often filed away or taken possession of by some individual.

The fact of the matter is that the trade paper should have a wider circulation within the personnel of any business than is usually the case. There is hardly an employe in the bicycle industry and kindred lines who would not be worth more money to his employer if he were a regular reader of the *Bicycling World*. If he lacks sufficient interest to subscribe for himself, or if he feels unable to do so, it would in most instances

be a profitable investment for his employer to subscribe in his behalf. In any event, a copy of the paper should be where the leading employes can find it, and they should be invited to avail themselves of that privilege. They should be urged to do so, for within his narrow limitations any department head, salesman or clerk can secure relatively as much benefit from the columns of a reliable and progressive trade paper as his principals.

Too many salesmen and clerks of proficiency fail of bringing the best results to their employers simply because they are confined in too narrow a groove; they know little or nothing of the news or happenings or thoughts or arguments of the trade, and are not given the opportunity to take that outlook into the world which broadens the mind and quickens the perceptions. While I can see that the *Bicycling World* is not designed especially for the employe, it is plain that there can never be an issue of the paper in which every one connected with the industries it represents, even though it be in a humble capacity, may not find something to his profit. He can then never plead ignorance as to "what's what" and "who's who" in the trade. It is a safe assertion that the employe who is interested in and by the journal devoted to his trade is the most intelligent employe, and usually the most valuable one.

Even if that something be not in line with his particular work, it is well for the ambitious, and therefore useful, employe to know in what relationship his particular line of work stands to the completed result; what it is that lies outside of and yet within reach of him in other departments of the business.

Reading a paper like the *Bicycling World* should make every salesman, artisan and clerk better fitted for his work, and therefore more profitable to his employer.

A. F. TENNILLE.

More Insurance Damages.

Another action—one of four on the calendar of the present trial term—brought by the Chainless Cycle Mfg. Co., of Rochester, N. Y., has just been decided in favor of this concern. The suit was brought against the Traders' Insurance Co. to recover for damages sustained on August 16, 1899, when the factory was burned down. The plaintiff demanded \$8,000, per agreement, while the defendant contended that the damages would not reach that amount, also that the agreement was made by an irresponsible party. Judge Nash directed the jury to bring in a verdict for the plaintiff for the sum of \$1,183.06.

Willis Makes a Purchase.

The Willis Park Row Cycle Co. has purchased of the American Bicycle Co. the entire stock of sundries formerly carried by the Rambler Sales Department. The deal gives the Willis people a considerable stock of everything from tires to tire tape and toe clips, on which there is latitude for something unusual in the way of price quoting.

STIMULATING SOLAR SALES

Badger People Make a Remarkable Offer to Boom Their Gas Lamp.

If Solar gas lamps do not make another spurt on the path of popularity during 1901 it certainly will not be that inducements are lacking to those who can advance the sale of that well known light giver.

Aside from the natural profit that goes with the sale of the lamp, its makers, the Badger Brass Manufacturing Company, of Kenosha, Wis., have inaugurated the most pretentious prize competition ever undertaken in the cycle trade.

An automobile, a motor tricycle and a motor bicycle are the leading prizes offered to the dealers who lend the most stimulant to Solar sales, and the scheme is so arranged that the dealer in any city or town of more than one thousand inhabitants has an equal chance with the agent in the more populous centres.

The offers in detail are as follows: To the retail dealer in the city or town over one thousand population who sells the greatest number of 1901 Solar lamps prior to August 1, 1901, in proportion to the population or size of his town as shown by the 1900 census, one steam automobile.

To the dealer who sells the second greatest number, one motor tricycle; to the dealer who sells the third largest number, one motor bicycle.

For the next largest sales, also in proportion to population, merchandise to the value of \$100, \$75, \$50 and \$25, respectively, will be given.

The competition will close July 31 next.

Bowe will Exploit Explorers.

After a brief absence from the trade the irrepressible John C. Bowe is in harness again, this time as sales manager of the Empire State Cycle Company, of Addison, N. Y.

He will handle the output in connection with the prismatic electric signs, in which he is interested, and will make his headquarters at No. 322 West Fayette street, Syracuse.

The Empire company will manufacture exclusively for the retail trade. They will make the Explorer bicycles in two patterns, at \$30 and \$40, respectively, and Bowe promises that the inducements to agents will possess as much attractiveness as has a magnet for a needle.

Swings From Clippers to Eagles.

The American Bicycle Company having practically abandoned the Clipper bicycle, Macauley Brothers, the well known Detroit dealers, who handled the wheel for seven years, have transferred their faith and allegiance to the Eagle. They will control the State of Michigan on the Torrington machine.

1901 FAVORITE BICYCLES

MODELS ARE READY.

You cannot afford to pass us the coming year. No Juvenile on the market will approach the 1901 FAVORITE in **QUALITY OR PRICE.**

You will want Spokes or Nipples for 1901. Do not buy until you have our proposition.

TOLEDO METAL WHEEL COMPANY, TOLEDO, OHIO.



Fisk Tires

Like a Streak of Greased Lightning

Stinson, on an Orient fitted with Fisk Tires, flashed around the track, covering 40 miles 330 yards in the hour, and making a world's record that riders day in and day out have been struggling to hang at their belts for years.

Fisk Tires hold the world's record for comfort and durability, as well as speed.

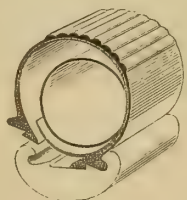
Fisk Rubber Co., Chicopee Falls, Mass.

BRANCHES:

SYRACUSE, 423 So. Clinton St. BUFFALO, 28 W. Genesee St. DETROIT, 252 Jefferson Ave.

DISTRIBUTORS:

United Supply Co., Boston. Henry Keidel & Co., Baltimore. Pratt Bros. & Co., Agts., Chicago.
A. F. Shapleigh Hdw. Co., St. Louis. E. T. Weiant, Denver.
P. B. Bekeart, Agt., San Francisco.



A TIRE THAT HELPS TO SELL THE WHEEL

BECAUSE

It is **DETACHABLE**, and therefore easy to repair.
It is handsome in appearance.
It is of the highest grade.

G. & J. TIRE CO.,

INDIANAPOLIS.

YOU REGULATE THE FLAME WITH A GAS VALVE IN THE COLUMBIA AUTOMATIC GAS LAMP.

For Bicycles, Buggies and Automobiles,
and the Water-feed takes care of itself.

LIGHTS AT ONCE.

Burns $\frac{1}{2}$ the carbide. Gives twice the light.

WATER FEED, automatic, *i. e.*, requires no regulator. Water flows proportional to flame set.

GAS VALVE regulates size of flame, high or low—only lamp in which you can regulate the flame in the manner.

Gas generated at low pressure thus avoiding all danger common to high-pressure lamps.



HINE-WATT MFG. CO.,

14-16 North Canal St., Chicago, Ill.

VICTOR REDIVIVUS

Manufacture of That Famous Bicycle to be Continued at Chicopee Falls.

The Victor bicycle has refused to die. It was too good a wheel and too proud a name to die, and throughout the trade in which it was once such a factor the news that the Victor is alive once more will be acclaimed and with unrestrained heartiness in many quarters.

The news came out this week—the news that the J. Stevens Arms & Tool Co., which purchased the Victor plant and assets at Chicopee Falls, Mass., had decided to take up and continue the manufacture of Victor bicycles in connection with their other goods. How such important news remained secret so long it is hard to imagine, for not only have the Stevens people decided to build the Victor, but 1901 Victors themselves are ready for the trade. Duffield Miles, the head of the Stevens bicycle department, and an old hand in the cycle trade, and once before identified with the Victor, is in New York this week with samples.

Like the Victors of old, it is a wheel that justifies attention and merits consideration, and the fact that a Victor weighing twenty-three pounds and listing at but \$35—for that is its weight and its price—is obtainable will be of itself enough to decide not a few dealers. Only this one model will be marketed; a chainless may follow in time, but that has not yet been decided.

The wheel is made of 1½-inch Shelby tubing and is equipped with Ideal handlebar and seatpost, Bennett pedals and Victor single tube tires, the distinctive red tint of which will be recalled, and which will be retained. Several other former Victor features are also retained, the crank hanger, the sprocket and the hub with direct spokes among others.

Before bringing out the wheel the Stevens people circularized all of the former Victor agents, and Mr. Miles says the returns astonished him. The widespread loyalty and readiness to take up the agency that had been interrupted by the Overman failure were remarkable. It gives the Stevens Co. a splendid corps of veteran agents to start with. They were all asked their opinions as to the weights, prices and features that were most desirable, and the new Victor is the composite production of these ideas.

A Victor coaster-brake will also be marketed, and in addition to being added to that wheel will be offered to the trade at large at a price that cannot well fail to interest. Duplicate parts of the Victors of former years will also be carried in stock.

The Stevens Co. is a big, rich, powerful concern, and their entry into the cycle trade is in the nature of an event. They have no old stock to work off—that was all made up and sold by the Overman receiver—and are in the business to stay.

Sercombe is Sued.

Although Parker H. Sercombe, formerly of the well known firm of Sercombe & Bolte, Milwaukee, washed his hands of the bicycle business years ago, this withdrawal does not avail to shield him from importunate creditors.

On Monday an attachment was issued against him in New York City, he being termed "President and manager of the American National Bank of the City of Mexico," and the property attached being money now on deposit in the Mercantile National Bank of this city. The Mercantile National Bank declines to honor the attachment on the ground that the funds in its possession are not the personal property of Sercombe.

Sercombe is the defendant in a suit brought against him by T. W. Wampler, a lawyer at No. 32 Broadway. Wampler says that prior to 1892 Sercombe conducted a bicycle factory in Milwaukee, and when he went to Mexico left behind him certain obligations. Wampler as a business speculation purchased \$11,000 worth of notes and went to the City of Mexico to see what terms he could make with Sercombe. The latter refused to pay them.

Wampler says he expects to get a judgment by default.

Blow Followed Demand.

Under an order issued by Justice Andrews, of the New York Supreme Court, Deputy Sheriff Torrey last week arrested City Marshal William H. Lee in an action brought against him by the bicycle firm of F. A. Gargare & Son, of No. 135 West Twenty-sixth street, to recover \$500 damages for the wrongful conversion of their goods on October 16.

According to the plaintiffs, Lee went into their store and demanded immediate settlement of a judgment for \$9 which he claimed to have against them in a suit by Adolph Teitelbaum. When they denied any knowledge of the suit they allege that Lee drew his club and threatened to strike Frank Gargare, and dragged him from behind the counter of his store. Lee, they say, then seized \$500 worth of bicycles and fittings.

Lozier a Motocycle Enthusiast.

H. A. Lozier, jr., manager of the American Bicycle Company's Cleveland sales department, is a motorcycle enthusiast of the red-hot type. Unlike most of the trade, however, he pins his faith to the tricycle as against the bicycle. Incidentally, the Cleveland motor tricycle, for which Mr. Lozier is largely responsible, is one of the trimmest and most attractively finished that has seen the light.

Chapman Wants Receiver.

The Chapman Manufacturing Company, of Meriden, Conn., has asked for the appointment of a receiver, and the plant will be kept in operation until the matter is decided. The company manufactures sleigh bells, bicycle bells, etc., and gives employment to more than one hundred hands when in full operation.

QUITS CANADA

A. B. C. Sells its Perpetual Rights and Retires From That Market.

Instead of a consolidation or amalgamation, the Canadian deal which has been on the tapis for several weeks turns out to have been an absorption.

It is the Canada Cycle & Motor Co., Ltd., which does the swallowing, it having on Friday last acquired control of its rival, the National Cycle & Automobile Co. The latter was the American Bicycle Co.'s Canadian annex, and while the terms of the sale have not been made public, it is plain that the big company has deemed it wise to unload such a burden as the National proved to be. This has been done without reserve, the A. B. C. having erected a Chinese wall on the northern border by turning over not only the existing property and rights, but by contracting to give the Canada Co. the benefit of all future inventions and developments.

According to the announcement, the deal conveys the rights of the American Bicycle Company for Canada in perpetuity, including the manufacture and sale of such wheels as the Columbia, Crescent, Stearns, Rambler, Crawford, Monarch, Tribune, Hartford, etc.

It is further stated that the agreement with the American Bicycle Company secures to the Canadian company their motor vehicle rights for all time to come for Canada, and also all their future inventions and devices and methods of manufacture.

Another Combine in Canada.

Combination continues to be the favorite occupation of Canadian bicycle manufacturers. The latest example of this is to be found in the organization of the Co-operative Cycle & Motor Co., Ltd., of St. Catharines, Ont., with \$250,000 capital. The provisional directors are William G. Nott, Percy E. Verity and Charles F. Verity, Brantford; James McBurney, Henry Hunter and James Ross, Toronto, and James A. Coulter, Ingersoll, and the officers W. G. Nott, president and manager, and J. W. McBurney, vice-president.

The factory and head offices will be at St. Catharines. The McBurney-Beattie Co., Ltd., of Toronto, and the W. G. Nott Bicycle Co., of Brantford, are absorbed by the new concern.

Savings Bank Made Receiver.

The bicycle and sporting goods store of C. A. Spencer, 1109 Second avenue, Rock Island, Ill., was taken possession of by the Central Trust and Savings Bank last week as receiver for the creditors, on appointment by the Federal Court, Spencer having entered a voluntary confession of bankruptcy at Chicago. The liabilities are said to be \$4,000 and the assets about \$6,000.

DOUBLE TUBE TIRES "TRUMPS" AND 3rd HAND HIGH.

The Trick is Ours.

DIAMOND 1920 DOUBLE TUBE SEASON, GUARANTEE.
WALDORF=ASTORIA DOUBLE TUBE, UNGUARANTEED.

We own the Patents—no Royalties.
Prices based on actual costs.

Objectional features of
closed end tubes over-
come.

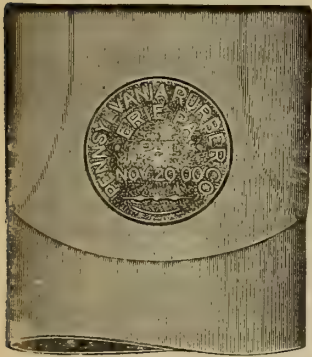
Continuous air chamber
throughout tire.

The Diamond Rubber Co.

AKRON, OHIO.

Write Early for
Samples
and
Quotations.

Here's a Winner.



We have just been allowed a
strong patent on the only Inner
Tube made with reinforced ends
that positively will not blow out at
those points.

Write for full particulars and
prices.

**PENNSYLVANIA RUBBER COMPANY,
ERIE, PENN.**

Bicycle, Carriage, Automobile Tires and Acces-
sories. Mechanical Goods.

**"MOTOCYCLES
AND HOW
TO
MANAGE
THEM."**

75
Cents.

THE ONLY
BOOK OF ITS
KIND IN
EXISTENCE.

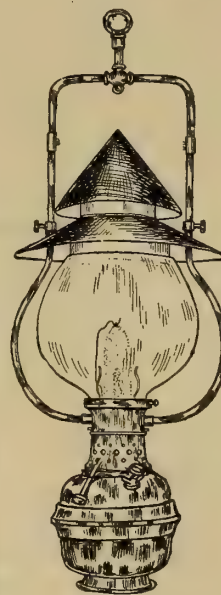
For Sale by

The Goodman Co.
124 Tribune Bldg.
NEW YORK.

MONEY TO BURN——EYESIGHT TO RISK.

YOU MUST HAVE IF YOU DO NOT USE
SEARCH-LIGHT VAPOR LAMPS.

SAMPLE SENT ON APPROVAL AT YOUR REQUEST.

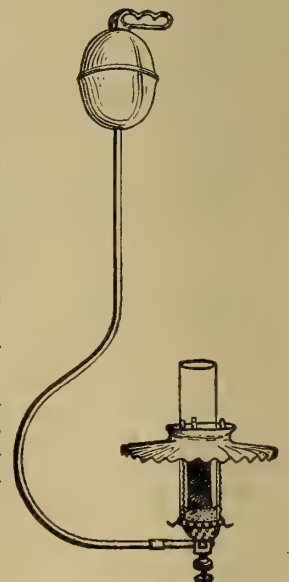


ARC
STREET LAMP.

They burn mostly air.
Their light looks like
daylight. They give
the cheapest and most
satisfactory form of arti-
ficial light. Six times
the light of a kerosene
lamp at same cost. An
equal amount of electric
light costs ten times as
much.

Keep busy all the year
and make money.

If you would appre-
ciate Search-Light qual-
ity in your store and for
your trade, send for our
illustrated price list and
special terms to bicycle
dealers.



SINGLE
INDOOR LAMP

SEARCH-LIGHT MANUFACTURING CO.,

358 Dearborn St., CHICAGO, ILL.

ORIENTAL OPENING

Chance to Reach Some Undeveloped Foreign Markets at Practically no Expense.

According to consular advices, the American Oriental Agency at Constantinople is doing good work in opening the Mediterranean markets to American manufactures.

The Agency is in the nature of a permanent exposition of American goods, and is yet "a business enterprise conducted for profit, with every facility which extensive capital, a knowledge of foreign languages, experience and brains can employ," as Consul-General Dickinson states.

It is not a "close corporation," however. Any American manufacturer who wishes to put his goods on the markets of Turkey, Egypt, Greece, the Balkans and Southern Russia can join this enterprise without the payment of a single dollar and with the assurance that every reasonable effort will be made to find a market for his products. If they are sold credit is not given to Tom, Dick or Harry, who may be irresponsible, but the exporter deals directly for cash or on credit, as may be agreed, with W. S. Bigelow & Co., of 116 Broad street, New York, or with the American Oriental Agency, whose proprietor, L. Zarifi, is one of the leading bankers of Constantinople. Neither he nor Bigelow & Co., who represent the American end of the combination, can get any return for their labor and expense except by selling the goods of the parties they represent and making a profit thereon.

"This," says Mr. Dickinson, "is the only method by which an individual exporter can reach the foreign market, and I maintain it is the only true method. The middleman who connects the exporter with the foreign consumer must be directly interested in selling goods and getting his pay. If he derives compensation in any other way he is almost certain to relax his efforts. Moreover, in this case the exporter pays, if he pays anything, not for rainbows or promises, but for actual results. By combining large and varied interests the American Oriental Agency can afford to do what would be impossible for a smaller concern, to wit, canvass the market thoroughly, with the understanding that it is to derive no profit unless sales are actually made."

The Agency is largely the result of Consul-General Dickinson's own inspiration and efforts. It was he who interested both Banker Zarifi and Bigelow & Co. and induced them to finance and operate the enterprise.

He says he has no hesitation in recommending the concern, but warns American exporters that quick results in general lines of American goods should not be anticipated. It takes time to put American goods on a new market already accustomed to goods of European manufacture, he says, and

adds that "if Bigelow & Co. and Mr. Zarifi are willing to continue their expense and effort and devote all their energies to this project while the introductory and educational process is going on the exporter should not be impatient if he fails to get immediate results."

The ground covered is not one that has been rich in purchases of American bicycles, but it is one of those "undeveloped spheres" which really hold promise because of the fact, and which, like the Philippines, may blossom when least expected. Since the tilling of the soil costs him practically nothing, it would seem that the cycle maker has as much right to be interested as any one else.



NEW YORK BRANCH: 214-216 WEST 47th ST.
BOSTON BRANCH: 80 BATTERYMARCH ST.,
Near Fort Hill Square.

Claims Probably Exceed Assets.

The commissioners appointed by the Superior Court to hear claims against the Keating Wheel and Automobile Company, of Middletown, Conn., upon the application of the receiver, will hold a meeting this week. The claims are so large that it appears there will not be a sufficient amount left to fully meet the claims of the general creditors. The bonds held by Middletown residents are secured by a mortgage on the building, which is said to have cost more than \$125,000. There are now outstanding \$88,000 worth of the bonds, with some interest due. The appraisers fixed the value of the building at something like \$76,000, but that is generally regarded as a very low estimate.

Operates on Shell Cocoa now.

At Freehold, N. J., last week the Sheriff sold out the factory property of the Zimmerman Cycle Co. There was a mortgage of \$3,000 on the property, and it was sold to Michael Ford for \$10 above this mortgage. The factory has been leased to a New York firm, which will operate it in the preparation of shell cocoa.

DIAMOND DEVELOPMENT

Something new in Double Tube Tires Makes its Appearance in Akron.

It has for some little time been an open secret in the trade that developments having bearing on the double tube tire situation might be looked for at any time.

One at least of these foreshadowed events has taken place. The Diamond Rubber Co., of Akron, O., has placed on the market a new inner tube which, it is claimed, does not infringe any existing patent. It is being shown to the trade, and is creating something of a sensation. The new tube stands the most critical inspection, and if the claims made for it are borne out by the test of actual use on the road it will be written down as a huge success.

Heretofore practically all double tube, cemented-to-the-rim tires have been made with butt-ended inner tubes, following the example of the inventors and patentees of this style of tube, Morgan & Wright. The utility of this method of construction is obvious; the ends being sealed and yet unconnected, facility was afforded for the removal or replacement of the tube. By comparison tubes joined in the centre, like tubes for detachable tires, and then cemented, were awkward and extremely difficult of manipulation.

The Diamond Co.'s tube is joined in the centre, but instead of being cemented it has what may be termed a mechanical joint. A rubber cylinder sufficiently thick to preserve its shape, even under considerable stress, is inserted in the two ends of the tube, the latter being then fitted over it. On the outside of this cylinder are two depressions running all the way around it, shaped so as to take two rubber bands.

These bands are slipped over the two ends of the tube, after the latter have been fitted over the rubber cylinder. By making them smaller than the cylinder sufficient compression is obtained to make the joint airtight; the bands once in place, the job is completed.

At first sight the ability of such a joint to retain air seems more than doubtful. Especially true would this appear to be when the tire is being subjected to the rough usage incidental to ordinary road riding. But confidence is expressed that it will do all this, tests having been made to that end.

That it does make a tight joint, one which will hold air effectually, is testified to by a well known tire man—and one whose firm is a competitor of the Diamond Co.

"The joint is, apparently tight," he said to the *Bicycling World* representative, "and the tube with it does hold air. I have examined it, felt it and satisfied myself that it was all right under such tests as were possible under such circumstances. What it will do in actual use is something which remains to be seen."

Larkin's Little Game.

Wide was the range of operations carried on by Patrick Larkin, terming himself a "publisher" at 532 Cornelia avenue, Chicago.

He is being tried before Judge Kohlsaet in the United States District Court, charged with having fraudulently obtained between \$30,000 and \$60,000 from merchants from whom he obtained goods. The latter ranged from bicycles to sprinkling carts, and from bricks to windmills.

Larkin's supposed scheme was a novel one. Besides his residence at 532 Cornelia avenue, he owned property at 530, 534 and 536 on the same avenue. He is said to have represented the total valuation to be \$18,000, with an encumbrance of \$1,900, whereas the property is said to have been mortgaged for its full value.

According to the stories told by his creditors, he changed the title to the property so often that the men with whom he corresponded were confused. He represented that the title was in the name of John Larkin, Allen Larkin or Marshall Larkin, and secured goods on recommendations from these supposed fictitious persons. When his creditors tried to secure service for attachment on these persons they found no one. It is said he defrauded more than a hundred firms in this way. The goods which he received were a miscellaneous assortment, and would have enabled him to establish a department store.

But the operator of the scheme, it is said,

disposed of the different orders as soon as they were received, and is said to have realized a handsome sum in consequence.

Refinements of the Racycle.

Than the grindstone illustration which the Miami Cycle & Mfg. Co. employ in their advertisement on another page, it is difficult to imagine anything which could more forcefully show the difference between their Racycle bearings and "the other kind"; it is a picture that is worth a ton of argument and explanation.

While these bearings will naturally constitute a chief feature of the Racycle, the Miami people have not been satisfied to rest content. Not only do their 1901 models bear visible evidence of improvement and refinement, but several new models have been added to the line, among them a cushion frame and a bevel geared chainless, the latter claimed to be two pounds lighter than all others, and with a head and other details out of the common.

Among the refinements of the standard models are flush head sets, a new semi-arched steel fork crown, a new seatpost expander and a new rim, flushed in antique oak and handsomely striped.

Paull is Placed.

H. A. Paull, lately with the American Bicycle Co.'s foreign department, has gone with the Canada Cycle & Motor Co. at Toronto. He will have charge of the office and sales department.

Strength With Lightness.

As little weight as is compatible with the required strength is the point which the designer of the new bicycle and automobile wrench patented by the Mossberg Wrench Co., of Attleboro, Mass., had in view.

The wrench has a stationary jaw made integral with the shank; the inner face of the jaw is upset by swaging to form a face as broad as that of the movable jaw, which is punched out of sheet metal and folded.

To make a bearing for the pin on which the screw collar turns in the rear end of the movable jaw, one ear is folded squarely across to form an inner bearing, while another ear is folded the opposite way across the rear end to form an outer bearing, the pin passing through both ears, and thus having a double bearing in the tail of the jaw.

Two other parts are bent up and over in semicircular form to meet over the top. This makes a cap and gives a solid and finished appearance to the end of the jaw. The centre block filling in between the folded sides of the movable jaw is left broader on one end to provide a face for that jaw. The block is held between the sides of the folded blank by rivets passing through the sides and block. Brazing is not required.

A hole in the rear end of the block corresponds with holes in the inner and outer folds and forms the other bearing for the pin. The thread on the screw collar is square and milled for turning with the thumb and finger, and a screw rack is made on the upper side of the shank for the threads of the collar. For retaining the pin in place the edge of the hole is headed over.

WISCONSIN WHEEL WORKS.
HEELS ORTH HILE.

MITCHELL BICYCLES.

BE GOOD TO YOURSELF

to the extent of investigating the merits of **MITCHELL BICYCLES** and **OUR PROPOSITION.**

It will cost you but two cents to do this.

Not to do so might cost you \$2000 loss.

IT WON'T HURT YOU TO TRY.

WISCONSIN WHEEL WORKS,

BOX W.

RACINE JUNCTION, WIS.

DIXON'S

**Cycle Chain
Lubricants.**

NEW PRICES.

NEW PRICES.

New prices for Dixon's Celebrated Cycle Chain Graphites have been made for 1901.

It will be good for the jobber and good for the dealer.

It will ensure the best lubricants at the lowest possible prices.

Write for Prices.

Electrotypes furnished free of charge, if desired.

JOSEPH DIXON CRUCIBLE COMPANY,

Jersey City, N. J.

PAYS A PROFIT

Canadian Combine's Satisfactory Showing —Dividend Declared—Its "Liquid Assets."

Highly satisfactory is the showing made by The Canada Cycle and Motor Co., Ltd., as made public at the annual meeting held at Toronto last week.

The report submitted to the shareholders covered the business of the past fiscal year, ending August 31, last, except that the business of the Australasian branch was included only up to May 31, 1900. The report, therefore, did not include any profits or record of business done in Australasia since June 1, or in the home or other foreign offices since September 1.

After paying the 7 per cent dividend on the company's preference shares and writing off a sum for expenses and losses not chargeable to trading account, the company placed \$25,000 (being \$11,644.64 in excess of the amount required by its charter) to a reserve fund for the benefit of the preference shares, and carried forward to the credit of profit and loss \$28,421.43.

The shareholders expressed themselves as pleased with the report and statement, which showed that in addition to the company's investments in real estate, machinery, plants, fixtures, etc., there were liquid assets aggregating nearly \$1,000,000 over all liabilities to the public.

The business outlook of the company was considered very bright.

The following directors were elected: W. E. H. Massey, George A. Cox, J. W. Flavell, Lyman M. Jones, Warren Y. Soper, Joseph N. Shenstone and A. E. Ames.

At a subsequent meeting of the directors, W. E. H. Massey was elected president; George A. Cox, first vice-president; J. W. Flavell, second vice-president, and Joseph N. Shenstone, secretary.

Tubeless Tire a Money-Burner.

The report issued by the makers of the "Fleuss" tire shows that a critical stage has been reached. The season's loss is only \$20,000, as against nearly \$90,000 last year and a total of more than \$300,000 in five years; but the concern's capital is exhausted, and no one seems to know where more is to come from. As the tire—one of the clincher variety and without an inner tube—has attained a certain measure of popularity, it is possible that this fact may lead to the reconstruction of the company.

What's What in Motocycles.

Post yourself on Motocycles. Study up on the cycle of the future. "Motocycles and How to Manage Them" will help you amazingly. The illustrations show the "insides" of the motor and the text explains. For sale by The Goodman Co., New York. Price 75 cents.

Absconder Sainter Surrenders.

When hope of locating William J. Sainter, an absconding bookkeeper of E. C. Stearns & Co., Syracuse, N. Y., had about been abandoned the fugitive walked into a Philadelphia police station and gave himself into custody.

This occurred last week, and Sainter told the detectives that he was wanted by the authorities at Syracuse, N. Y., for the embezzlement of \$700 from his former employers. He said that he worked for the concern as timekeeper for eighteen months, and during that period by padding the payroll secured the amount. In March, 1897, he said he thought that the firm was beginning to grow suspicious of him and he had fled.

Since that time he had been wandering about the country, but most of his time was spent in different parts of New York State. He finally went to Philadelphia and through a letter from a friend he learned that there was still a warrant for his arrest, and that the search had not been abandoned. Tired of eluding the law, penniless and broken down in health, he determined to put an end to his anxiety and sufferings by surrendering himself and going back to Syracuse to pay the penalty for his wrongdoing.

Sainter was locked up at the City Hall and the Syracuse authorities were communicated with by telegraph. A reply was received which said: "Some years ago William J. Sainter was employed by E. C. Stearns & Co., bicycle manufacturers, of this city, and had charge of the paying of the men. Officials of the company at that time said tonight that Sainter had secured about \$700 by juggling the payrolls and fled from the city. That was in 1897, and since then they had been on the lookout for the man, but had been unable to get trace of him. No warrant had been sworn out, they said, but one would be to-morrow, and an effort made to bring Sainter to Syracuse."

England's Yellow Journalism.

One of London's newest daily papers which is touted as being "run on American lines" has been creating ructions in the cycle trade by selling a mongrel bicycle at a mongrel price direct to its readers.

The paper's defence of its effort to injure legitimate trade is as shameless as the effort itself. Witness this despicable confession of the manager that he expects to spread ruin in the cycle trade:

"Manufacturers, agents and dealers, each would benefit by £3 or £4 on every machine they would sell; and as we are placing this £3 or £4 in the hands of the British public we shall consequently be the means of many failures in the cycle trade.

Of course, it is very unfortunate for shareholders in cycle companies, and even for cycle agents, who will be unable to send their advertisements to such papers as —. It can, therefore, be easily understood why our interest in the British public increases the wrath of the "penny-a-liner."

WOULD TRY WOOD

Jobber Willis Thinks Hickory Would Help in Motocycle Construction.

Like most other people who look far ahead, E. J. Willis, the well known New York jobber, is a believer in the motor bicycle. He considers it the natural evolution of the present type, but naturally does not expect it will be ready for any one like himself, with whom price and quantities are such factors, for several years to come.

In remarking the fact and commenting on the foolishness of simply attaching motors to bicycles as now constructed, he advanced an idea in that regard that is almost as radical as the motorcycle itself.

"For some time," he said, "I have thought a motor bicycle with a hickory frame would give the best results."

When the *Bicycling World* man asked Willis if he was really serious he replied that he was—that he made the suggestion in all earnestness and believed in what he said.

"Take the rigid all metal bicycle," he went on, "and fit it with a motor, and the constant road vibration from one direction and the pounding of the motor from the other tend to crystallize and crush the metal. But a hickory frame with long outside metal connections has not only strength, but just enough 'give' or elasticity to neutralize the shocks a frame must withstand. It's well worth consideration."

As to Trade in Australia.

Melbourne, Oct. 19.—We have at last shaken off our long-continued winter. It extended over six months, and during that time we had not at a stretch a week's fine weather. The cycle trade in particular has had a very critical period to pass through, and several fell by the wayside. The Austral Cycle Agency, an erstwhile powerful company, has after varying changes of management and policy determined to quit entirely the cycle business, and is now holding auction sales of its stock and plant, commencing with the tools, etc., of the workshop.

The firm doing the best turnover is the Massey-Harris company, of Canada. The Australasian agency of this company also managed the business of the Red Bird Cycle Co., of Brantford, Canada, only lately acquired, but intends to push these machines in a like manner to the Masseys.

The small maker continues to do a seemingly profitable business, to judge from the number of the establishments; but how he can live and move, have his being and pay rent, etc., and put on the market a machine of B. S. A. parts, nickelled and enamelled, at \$62 to order is incomprehensible. The machines are not made in any great quantities, simply because the purchasing power of such a young community is necessarily limited.

VICTOR BICYCLES

STANDARD FOR QUALITY

WE KNOW WHAT THIS MEANS
AND ARE ABLE TO MAINTAIN IT.

THE 1901 VICTOR

WITH ALL THE GOOD POINTS OF THE OLD AND ALL THE BEST POINTS OF THE NEW

MADE BY

J. STEVENS ARMS & TOOL CO., CHICOPEE FALLS, MASS.

Manufacturers of Rifles, Shot-guns, Pistols and Fine Mechanical Tools.

THE NAME AND MAKER GUARANTEE THE STANDARD.

AGENTS—WRITE FOR TERMS.

See Announcement elsewhere in this issue.



OF THE
**Jobbers
and
Dealers**

WHO LAST YEAR HANDLED

Goodyear Tires

SHOWED A PROFIT.

This is because there is a margin of profit in
these tires.

"A word to the wise is sufficient."

Electros and prices upon application.

The Goodyear Tire & Rubber Co., Akron, Ohio.

MOTOCYCLE'S RIGHTS

Worcester's Legal Adviser Delves Into Law and Delivers an Opinion.

That a bicycle was a vehicle, and as such entitled to the fullest rights of the road, was early made the contention of cyclists. This view of the matter was finally accepted, although it took years of hard fighting, the passage of Liberty bills, etc., to accomplish the desired object.

The position of the motor vehicle is easier to fix, notwithstanding the fact that it embraces both cycles and carriages under this heading. There are few dissenters from the opinion that all are vehicles, possessing the same rights and privileges, and subject to the same restrictions as horse drawn vehicles, and this view of the matter is not likely to be seriously contested. Nevertheless, it is desirable that the status of the motor vehicle shall be legally established, to the end that no conflict shall arise or exist on this point.

Peculiarly timely, therefore, is the elaborate opinion written by City Solicitor Rugg of Worcester, Mass., defining the position of the "horseless carriage," as he terms it. Worcester has a considerable number of both motocyclists and automobilists, and the rapid increase in their ranks rendered a definition of their position highly desirable; hence the opinion of the City Solicitor referred to, which is, in part, as follows:

"I assume that 'horseless carriage,' as used in your communication, refers to the automobile, locomobile, motorcycle and other similar contrivances for travel upon the street, which are not directly propelled by muscle of man or beast.

"There is no statute specifically regulating the speed of such carriages. Chapter 479 of the acts of the year 1894, as amended by Chapter 312 of the Laws of 1900, relates only to the bicycle and tricycle, and the definition contained in Section 1 of the latter statute of those two words is that they shall 'include all vehicles propelled by the person riding the same by foot or hand power.' This obviously excludes all vehicles propelled by electricity, steam or any other motive power than that of the human hand or foot, whether it be a two, three or four wheeled device, and cannot apply, therefore, to the horseless carriage.

"The only city ordinance bearing upon the question is Section 19 of Chapter 41 of the Revised Ordinances of 1895, which, as amended by an ordinance passed December 23, 1895, and approved December 24, 1895, reads as follows: 'No person shall ride in any carriage or drive any horse or horses in any highway or street in such a manner as to endanger or unreasonably incommode passengers therein, nor at a rate of speed exceeding eight miles per hour, except that the Board of Aldermen may allow a rate of speed exceeding eight miles per hour on such

streets or portions thereof, and with such restrictions and regulations as it may deem proper.' The order of the Board of Aldermen passed in 1896 has no bearing upon your inquiry.

"The question to be determined is whether the word 'carriage' as used in this ordinance applies to the horseless carriage described in your inquiry.

"So far as I am aware, there has been no dissent among appellate courts upon the proposition that the bicycle, when it is placed upon the highway as a means of conveyance, becomes subject to all regulations, restrictions and liabilities to which any other vehicle or carriage is subject.

"So far as I am aware, with a single exception, the legal rights of the automobile and horseless carriage have not been discussed by any court of last resort, although several cases have arisen before courts of inferior jurisdiction. These decisions, however, afford us slight assistance in determining this question; the exception referred to is *Parkyn vs. Preist*, 7 Q. B. D. 313, in which an opinion was given by the late Chief Justice Coleridge, who decided that a machine corresponding to what is known as the motorcycle was 'a locomotive propelled by steam or any other than animal power,' within the meaning of the English statute then under consideration.

"This case may raise considerable doubt as to the rights of the horseless carriage in case of accident, but the decision contains no intimations throwing light upon the inquiry you present as to whether the machines in question may be subject to the provision of the ordinance. The plain object of the ordinance is to protect the people who are rightfully travelling upon the public ways from the danger of bodily injury which would naturally come from the indiscriminate and general travel at a high rate of speed. It is of small consequence that the horseless carriage was not in use here at the time the ordinance was passed.

"The City Council clearly desired and intended to prohibit the use of any sort of carriage and to guard against the propulsion of any sort of vehicle in such manner and at such speed as to endanger the lives and limbs of other travellers upon the streets. The motive power is quite immaterial in this view. The language used in the ordinance is comprehensive enough to include any kind of vehicle which may be driven fast enough to be dangerous.

"I am of opinion, therefore, that the horseless carriage is within the prohibition of Section 19 of Chapter 41 of the Revised Ordinances as amended, and cannot lawfully be run at a higher rate of speed than eight miles per hour.

A. B. C. at the Stanley.

For the first time since its organization, the American Bicycle Co. will have an exhibit at the Stanley Show this year. It is said that practically every make of machine produced by it will be on view.

TRICYCLE'S TRIAL

Boston's Monstrosity Finally Gets Into Court and is Declared a Nuisance.

One of the oddest and most interesting cases tried in many months took place in the Suffolk Superior Criminal Court, Boston, Mass., last week. It is not entirely without parallel in this country, but is unique in its way.

The cause of the trouble was the big advertising tricycle which was constructed some four or five years ago to advertise the excellences of the Vim tires, then made by the Boston Woven Hose and Rubber Company, of Boston, Mass. The striking feature of the vehicle was its two wheels shod with enormous pneumatic tires; the wheels were eight or ten feet in diameter, while the tires were about as many inches.

This monster machine was driven by man power, some half dozen lusty "riders" pedalling away as if for dear life, and being rewarded for an immensity of toil by the working up of a speed of some two or three miles an hour. After having been exhibited at league meets and other similar functions the machine was taken to Boston. There it passed into the hands of some one who used it to advertise any article whose makers were willing to pay the rates demanded for advertising space.

The complainant in the case was Officer Measury, and he charged that Joseph H. Mitchell paraded the vehicle in and about Dewey Square on April 28, to the nuisance of the people of the Commonwealth and in violation of the laws governing the common use of highways.

Judge Bishop detailed much law to the jurors in giving his charge on the case, and both the government and the defence put in interesting matter for jury consideration. The jurors were out quite a while, and then, through the foreman, asked the Court if a verdict of guilty would mean that the owner of the vehicle would be prevented from using it in any other section of the city. Judge Bishop said that would be a question for further consideration.

The jury again retired, and soon brought in a verdict of guilty. The case will go to the Supreme Court on exceptions, and will not be disposed of in the Superior Court until the Supreme Court passes upon it.

Concerning the Keim Catalog.

Wherever there is need for the parts and fittings that go to make up a bicycle, there is need for the catalog of John R. Keim, of Buffalo, N. Y., which is now being distributed. It is a well arranged, well printed, compact volume of ninety-six pages, of pocket size; it illustrates and deals with about everything that constitutes a bicycle and also an automobile, ten pages of the book being devoted to the engine, boiler, running gear and other automobile parts, which Mr. Keim recently added to his productions.

PIERCE'S POLICY

Lines on which the Buffalo Makers Work Their Models and Prices.

While the Geo. N. Pierce Co. have been throwing much of their energy into their Pan-American cushion-frame chainless, their other models have not lacked attention, but, as Treasurer Clifton says, "when a conservative and prominent bicycle manufacturer has seen it to his interest to extend the short guarantee in vogue among bicycle manufacturers for some years and make a season's guarantee in place it is not far to see that it is necessary in order to maintain this guarantee that no experimenting should be done with the models placed upon the market that is not fully justified by prior road experimenting."

The consequence is that the Pierce rigid frame line for the ensuing year will not show as many changes as some others; but at the same time, however, the very high reputation maintained in the past will be continued, and in default of any radical changes, either in style or material, the equipment used will be considerably increased in value, so that nothing can be left in this particular to be desired, and it is in the equipment that the best clues to the policy of a maker are usually to be found.

On all Pierce wheels listing at \$50 and over the Morse roller chain will be regularly specified. This is unquestionably one of the great improvements introduced of late years on chain wheels. The saddle equipment will be of the very best, and on the entire line nothing will be used for 1901 but indestructible leather grips. This is a point taken in favor of the dealer, who in the past has been obliged to replace a great many broken grips at his own expense, and this change in specifications is made as a protection to the dealer. On the regular line nothing will be used in the fork construction but the double plate fork, with enamelled fork slides, which have for years been one of the earmarks of the Pierce.

While other concerns have been endeavoring in every way to seek out some new kinks for their rigid frame line, the Pierce company have been throwing all their mechanical skill and efforts into, first, the development of the cushion frame chain wheels, and, second, the development of what they claim to be the finest road model ever produced in the world—the Pan-American Special of 1901, combining successfully the cushion frame, the bevel gear and the New Departure hub coaster-brake. In the production of this model only genuine Leland & Faulconer gears will be used. This company has turned out a large number of these wheels during the last year, and is able to put practically the same model on the market for 1901 with minor changes only. Other makers are now preparing to market wheels

of this type, but it is due to the Pierce company to say that they have been the pioneers in this particular development.

The Pierce prices will be as follows: Regulars, \$40; specials, \$50; racers, \$50; cushion frame chain wheels, \$55; cushion frame chainless, \$75. If coaster-brakes are desired on any model \$5 extra will be charged.

Searchlights will Still Shine.

One of those rumors that seem to spring from nowhere and that cannot be successfully traced has had it that the Bridgeport Brass Co. had or would withdraw from the bicycle lamp trade, or at best would cease to push the Searchlight aggressively.

The withdrawal of such a rich concern from a field in which it was a factor, and in which it once worked a revolution, seemed improbable, but the rumor circulated, nevertheless. It will stop short this week, however, as the Bridgeport people have made it plain that they are still in the game and mean to remain in it. Their 1901 lamps are ready, and they themselves are as ready to talk business as interestingly as of old.

In the cycling world there are still those who fail to appreciate that it was the Bridgeport Brass Co. that completely revolutionized the manufacture of bicycle lamps. Until their Searchlight appeared all lamps were plain, heavy, ungraceful, square, expensive things that burned lard oil; when the Bridgeport people brought out a round, graceful, ornamental lamp that burned kerosene it created a sensation. It was accepted gingerly at first, but gradually it won its way, until finally it completely dominated the market; it drove the English article out of this country, and Searchlight became a name to conjure with.

When the Bridgeport Co. took up the gas lamp they were as painstaking and thorough. It is doubtful if any one has given more effort or money to its perfection, and it is this perfected article that is now being offered. It merits consideration whenever gas lamps are being considered.

Sherman States Its Case.

In announcing their purchase of the Manson Cycle Co.'s assets the Sherman Cycle Co., Chicago, "states its case" in a manner that has the right ring to it, and that should make friends for them. Hear them:

"We have purchased the names, the trade marks, the stock, the material and the goodwill of the Manson Cycle Co. We will manufacture the Manson bicycle; we will do all in our power to sustain its previous reputation for excellence; we will improve it; we will be proud of it; we will make it a valuable addition to our well-known line of Sherman bicycles. We want all old Manson and Sherman agents to feel that we are seeking their patronage by giving them the best actual value possible, and we want new agents to tie to the new-old Manson for 1901 with view to profitable business with a machine whose popularity and merit are unquestionable. We are ready to do business now."

CROOK CONVICTED

Pennsylvania Swindler who Mulcted the Cycle Trade Gets Fifteen Months.

Just how far W. J. Langdon, "dealer in bicycle goods" at Allentown, Pa., had advanced in his nefarious career it is not easy to say; but he will not prey on the trade for fifteen months to come, he having been sentenced last week to the Eastern Penitentiary for that length of time.

His conviction was brought about by T. C. Bradford, 311 Market street, Wilmington, Del., a dealer in and jobber of bicycles and sundries. Last April Bradford received a letter from Langdon, who purported to be a dealer in bicycle goods at Allentown, ordering bicycles, and on the strength of that and subsequent letters sent shortly afterward he sent Langdon six bicycles, valued at \$135. In payment Langdon sent Bradford two checks, first one for \$45 and shortly afterward another for \$90. Bradford deposited the checks in the First National Bank, where he keeps his account, and was surprised in about two weeks to have them returned to him protested. He was required to pay the protest and began an investigation.

He went to Allentown and had Langdon arrested and arraigned before a magistrate. Bail was given and the case went to the Court of Quarter Sessions. While the matter was pending there Bradford was advised that, as he shipped the goods by express and the transaction virtually took place in Delaware, he had better have the case taken there by getting letters from Governor Tunnell to the Governor of Pennsylvania. He decided, however, to bring the matter to the attention of the Postoffice authorities, with the result that Langdon was convicted of sending worthless checks through the mails and sentenced as stated.

Langdon's operations were wide in extent and squeezed not a few manufacturers and jobbers. His plan in almost every instance was the same. He had a rush order and inclosed his check for the goods, with the urgent request that they be shipped by express. The goods were sent in many cases—and then the check would be returned as worthless.

Promoting Winter Sales.

The Waltham Manufacturing Company is doing good work in endeavoring to convince the dealer that the cycle trade is not merely a summer business. They are using their long crank Orient as the lever to do the convincing, and are advancing some strong arguments to demonstrate that it is the wheel par excellence for winter riding, and, therefore, for winter sales.

The loss incurred through the explosion and resulting fire which destroyed the factory of the National Cement & Rubber Mfg. Co. last week is entirely covered by insurance.

What Statistics Show.

Statistics are stubborn things, and not easy to ignore, no matter how distasteful they may be. When, on the other hand, they point in the direction one desires, they are all the more welcome.

Here, for example, is "Le Velo," the Paris cycle paper, which has been compiling some interesting statistics dealing with accidents in France caused by the horse, the railway train, the cycle, etc., during the month of August. The results are all in favor of the cycle, although in the absence of figures showing the proportion of accidents to the number of horses and cycles in use they lose much of their value.

The majority of the horse fatalities appear to have been caused by animals bolting, and in the course of their mad career either running over children and elderly people or throwing their riders or drivers from their backs or from the vehicles they were attached to; while deaths occurring from kicks appear fairly common.

Cycles show various fatalities caused by riders spilling, and in most cases sustaining fractured skulls, one fatality caused by the rider charging into a wagon and five through persons being knocked down by cyclists. The various figures are as follows: Accidents caused by horses, 1,024, of which 106 were fatal; by cycles, 146, of which 9 were fatal; by motor cars, 29, of which 2 were fatal.

Looks for a Turn of the Tide.

There are not wanting indications that the prices of bicycles have reached bed rock bottom, and are likely to go up during the coming season, says an English journal. More than one of the leading firms announce small rises in the prices of their machines, and although the advances are so small that

the public are not likely to be asked for any more, it will have the effect of making the agents stick to the net prices now universally quoted by manufacturers, instead of giving discounts off the list prices, as many of them have been foolishly doing during the last two seasons.

We regard this indication as a hopeful sign not only from the point of view of those interested in the trade as shareholders and as retailers of cycles, but also from the point of view of the riding public. Manufacturers and agents must get a living profit—they cannot go on forever selling machines at prices which give them no more profit than is got at the present time.

Game did not Work.

A good story is being told of the routing of an English concern which attempted to auction off a lot of cheap "crocks" in a certain town. Concerted action did the trick, as the attempted sale was utterly ruined by a combination among the local dealers.

One firm when the auction announcement came out advertised in a local paper offering to make and guarantee similar bicycles at four guineas each, finishing with the sarcastic reminder to the public, "Remember, we do repairs." Then when the auction was actually commenced a series of awkward questions were put as to the guarantee, and who were the makers. Less than a dozen machines were sold as a result, and on the second afternoon the attempt to carry on the auction was abandoned.

Will Feature Their Frames.

Joseph Strauss & Son, Buffalo's newest jobbing firm, mean to make a specialty of frames and built up wheels, the former in particular. To that end, and to enable the quoting of close prices, they are fitting up a frame building plant on their premises, Nos. 694-696 Michigan street.

If experience is the best teacher—and it is—then our experience of

58 YEARS

in making all sorts of bells for all sorts of people,

OUGHT TO CONVINCE YOU

that we know the business pretty thoroughly, and can supply you with the best of bells at the best of prices.

We even make bold to say that we do not believe you can afford to place an order until you see our goods and get our prices.

If you will write us, we will be pleased to give you the reasons.



BEVIN BROS. MFG. CO.,

East Hampton, Conn.

(Business founded 1832.)

Also makers of Trouser Guards, Toe Clips, Lamp Brackets, etc.

THE CUSHION FRAME READ

What others can do YOU can do.

HYGIENIC WHEEL CO.,
220 Broadway, New York.

Detroit, Mich., Oct. 15th, 1900.

GENTLEMEN:—

I have sold at RETAIL HERE in DETROIT during the past season UPWARDS of THREE HUNDRED CUSHION FRAME BICYCLES. Never before in my fifteen years experience as a bicycle dealer have I handled goods that have appealed more quickly to public fancy nor have proven more permanently satisfactory than Cushion Frame bicycles. In my opinion the Cushion Frame is the greatest practical invention in the make-up of a bicycle since the advent of the pneumatic tire. IT IS DOING MORE TO POPULARIZE CYCLING than any other modern improvement. I FIRMLY BELIEVE that the STANDARD WHEEL OF THE FUTURE will be the CUSHION FRAME.

Very sincerely yours,

WM. E. METZGER.

Mr. Metzger has sold all the Cushion Frame bicycles above noted at prices ranging from \$50.00 to \$80.00. Don't you think there is money in handling Cushion Frame models?

Write your manufacturers about them.

NOTE:—Cushions are attached only to HIGH GRADE BICYCLES.

NOT ONLY IN NAME AND FAME
BUT ALSO IN FACT

THE MANSON

STILL LIVES.

WE have purchased the names, the trade marks, the stock, the material and the good will of the MANSON CYCLE CO. We will manufacture the MANSON bicycle; we will do all in our power to sustain its previous reputation for excellence; we will improve it; we will be proud of it; we will make it a valuable addition to our well-known line of SHERMAN bicycles. We want all old MANSON and SHERMAN agents to feel that we are seeking their patronage by giving them the best actual value possible, and we want new agents to tie to the new-old MANSON for 1901 with view to profitable business with a machine whose popularity and merit are unquestionable. We are ready to do business now. Correspondence is solicited.

THE SHERMAN CYCLE CO.,

241-249 S. Jefferson St.

CHICAGO, ILLINOIS.

To all whom it may Concern:

Be it known, that the Bridgeport Gun Implement Company, of Bridgeport, Conn., stand ready to defend any and all patent infringement suits brought against any and all customers using bicycle pedals manufactured by us.

THE BRIDGEPORT
GUN IMPLEMENT CO.

THERE ARE
MANY
GOOD POINTS
TO THE
1901
OLIVE
BICYCLE.



The best Shelby tubing, Thor hubs, LeFever chains, Fairbanks rims, Excelsior spokes, Kelly bars, special crank hanger, guaranteed. In fact, **OLIVE BICYCLES** for 1901 embody all that's best in cycle construction. The prices run from \$30 to \$55.

It's an absolute fact that agents can make money selling **OLIVE WHEELS**, for they sell themselves wherever shown,

Territory open. Send for further particulars and "Our 1901 Inducements."

OLIVE WHEEL CO.,

SYRACUSE, N. Y.

LIVERPOOL'S SYSTEM

How its Trade Association Handles the Question of Second-hands.

The trading-in of second-hand bicycles is an evil or abuse which can never be lopped off entirely; all that can be expected is its regulation, and that is a matter which must be left almost entirely to the dealer.

There is little doubt that while the practice will be continued in the future it will be shorn of many of the disgraceful and disastrous features which marked it in the past. The season just ended has afforded a good indication of this. Trading was indulged in more freely than for several years, yet it was done on a basis that was, on the whole, satisfactory. The prices allowed on the second-hands were more in keeping with their real value, i. e., the figure at which they could be sold again, than at any other time.

It is all very well to talk about the trading system being wrong. Perhaps it is, and then again perhaps it isn't. At any rate, it exists, is seemingly ineradicable and has the life of a similar system in regard to pianos, sewing machines and other articles to keep it in countenance. It is therefore a condition and not a theory, and each dealer must handle it in his own way.

In the matter of prices, however, co-operation on the part of the dealers can accomplish wonders in the way of reforming the existing abuses. This view is emphasized by a paper read by a Liverpool, England, dealer at a recent meeting of the Liverpool Traders' Association. Second-hand machines would always have to be reckoned with, said the writer of the paper. He had had twenty years' experience in the cycle trade, during which time the subject of second-hand machines, and how best to deal with them, had received much of his attention. In the present days of net prices and low-priced machines the troubles arising out of the long-established custom of taking old cycles in part payment for new ones had become greatly intensified. Something must be done to lighten the burden. But what?

Customers would always expect the cycle agent to relieve them of their old machines, although why they should expect him to purchase their cast-offs was a question he had never yet solved. If you went to an ironmonger for a new fender you did not ask him to take an old one in part payment, nor did you expect your tailor to allow you so much for your old pants.

After touching upon the many evils arising from the present system of dealing with second-hand machines the writer suggested several improvements upon it. Men about to buy a new machine, and having a second-hand one to dispose of, would hawk the old one about the town until they received the best offer for it—that was to say, the largest

amount that would be allowed for it in part payment of the new one.

To effect a sale cycle agents frequently allowed more for a second-hand machine than it was worth. That was not right. A capable cycle trader knew the actual value of second-hand machines, and more than they were worth should never be given. Co-operation was the only remedy. Traders must agree among themselves never to allow more for a second-hand machine than it was worth. By so doing all would benefit.

He then outlined several ways in which traders might dispose of stocks of machines which had been taken in part payment. The scheme he favored most was the appointment by the Trades' Association of auctioneers to sell the second-hand machines accumulated by the members—in short, to establish an association auction mart.

Sales would be held periodically at times suited to the market. If a machine sent to the association to sell realized more than had been allowed for it the surplus would go toward the expenses of advertising the sales. If less than the amount allowed on it were realized, the loss would be the member's who had sent it in; he had allowed for it more than it was worth. Second-hand cycles sold by the Trades' Association would be likely to fetch much more than if sold at general auctions.

Of course, members would have to be careful to send sound machines only to be dealt with by the association, so that the public could purchase with safety. A little over the actual value of the machine taken in part payment should be allowed, to go toward the association's expenses in selling it.

B. & A. Mileage Good on N. Y. C.

The Boston & Albany Railroad having been leased to the New York Central, the mileage of the Albany road will now be added to that of the New York Central, and hereafter a thousand mile ticket of the New York Central & Hudson River Railroad will be good on the Boston & Albany Railroad. This will prove a great convenience to the travelling public who desire to reach points in Massachusetts on or reached via the Boston & Albany, including, of course, Boston.

The holder of a New York Central thousand mile ticket will now have the privilege of riding over lines aggregating more than 6,000 miles of railroad on a ticket costing only two cents per mile, good for the person presenting it and good until used. ***

The West is Hopeful.

After a trip through Illinois, Wisconsin, Missouri, Iowa, Kansas, Nebraska and Minnesota, S. F. Heath, of the Wisconsin Wheel Works, says he finds the retail trade particularly hopeful of the future, especially in the northern cities like Minneapolis. Mr. Heath says the great majority of dealers reported a satisfactory season, and stocks in most instances are reduced to safe and encouraging margins, usually a few machines.

DOOLITTLE'S PASSING

Failed With the Back-pedaling Brake but Finds Wealth in Mining.

Comparatively few wheelmen at the present time remember either the Doolittle brake or its inventor, Dr. P. E. Doolittle, from whom it took its name. Yet the former was undoubtedly the forerunner of the coaster-brake.

At the L. A. W. meet at Philadelphia in 1897 the Doolittle back-peddalling brake created a small sensation. It was tried by hundreds—perhaps thousands—of riders, and its future seemed assured. Something slipped, however, and the device came to naught. Perhaps it was the coaster-brake, which shortly afterward made its bid for popularity, and embodying, as it did, the old coaster with the new back-peddalling brake, it naturally threw the Doolittle device in the shade.

However, Dr. Doolittle has gotten over his disappointment at the failure of his invention to achieve popularity. He is a Canadian, and at the present time divides his time between Toronto, his place of residence, and British Columbia, where he has large mining interests. Through the latter he has become a wealthy man, and probably gives little thought to the time when he was pushing the Doolittle brake in Canada, Great Britain and the United States all at the same time.

It is not generally known that this was not Dr. Doolittle's first incursion in the cycling field. Such is the case, however, for as far back as 1870 he had built for himself at a blacksmith shop what is claimed to be the first machine of the type manufactured in the Dominion.

This was of the boneshaker type and possessed most of the characteristics which distinguished those machines. It had the barrel of an old musket adapted for a backbone, and an old iron tired wagon wheel forward, with the wheel from a child's velocipede aft, while the pedals were blocks of wood fixedly attached on cranks of malleable iron. Ball bearings, swing pedals, pneumatic tires and saddles were still in the undreamed of future—the saddle of this pioneer bike chanced to be the lid of a soap box screwed down to the backbone, and the machine complete weighed 120 pounds.

On this crude machine Dr. Doolittle established the first authenticated Canadian record. He rode from Alymer to Strathroy, Ont., covering the distance, about twenty-five miles, in seventeen hours. When the high bicycle made its appearance Dr. Doolittle acquired one and indulged in racing on track and road with a considerable amount of success. With A. T. Lane, of Montreal, Dr. Doolittle was also instrumental in forming the Canadian Wheelmen's Association.

The Week's Patents.

662,115. Bicycle Frame. Joseph S. Dikeman, Torrington, Conn., assignor of one-half to Charles S. Dikeman, same place. Filed Apr. 20, 1900. Serial No. 13,643. (No model.)

662,008. Tire for Vehicles. William F. Masters, New York, N. Y. Filed Aug. 1, 1900. Serial No. 25,494. (No model.)

661,965. Non-Slipping Rubber Tire. Kanute A. Enlind, Naugatuck, Conn. Filed Feb. 19, 1900. Serial No. 5,677. (No model.)

662,346. Cycle Saddle Attachment. John B. Brooks, Bromsgrove, and John Holt, Aston, England, assignors to the J. B. Brooks & Co., Limited, Birmingham, Eng. Filed Mar. 6, 1900. Serial No. 7,527. (No model.)

33,598. Frame for Motocycles. George M. Holley, Bradford, Pa. Filed Oct. 25, 1900. Serial No. 34,394. Term of patent, 14 years.

33,599. Crank Hanger for Motocycles. George M. Holley, Bradford, Pa. Filed Oct. 26, 1900. Serial No. 34,513. Term of patent, 14 years.

662,332. Tire. William A. Wright, Atlanta, Ga. Filed May 3, 1900. Serial No. 15,385. (No model.)

662,260. Crank Hanger. William H. Fauber, Chicago, Ill. Filed Oct. 19, 1898. Serial No. 694,056. (No model.)

662,208. Pneumatic Tire and Shoe. Aaron Vreeland, Bloomfield, N. J. Filed June 6, 1900. Serial No. 19,335. (No model.)

662,177. Elastic Tire for Vehicles. Henry Tolman, Newton, Mass. Filed May 5, 1900. Serial No. 15,589. (No model.)

662,158. Bicycle Saddle. Benjamin F. Wheeler, Detroit, Mich., assignor by mesne assignments to the Wheeler Manufacturing Company, same place. Filed Jan. 15, 1900. Serial No. 1,434. (No model.)

One Pressure Operates Two Brakes.

One is tempted to say that the brake question has been so thoroughly discussed that there was no room left for marked originality in evolving new ones.

Yet an English maker comes to the front with one which possesses just such characteristics. It is a duplex brake, both being applied—to the front and rear rims—by one application of the hand lever, which is depressed by a very moderate pressure from the thumb. The brakes are connected by a wire passing down the centre of the steering heads, that for the front wheel being attached by means of a wire fork passing over the tire on either side of the front fork. Just below the crown is a concealed spring, contained in a neat metal box, to which the leather brake shoes are secured, and when the lever is pressed down the brakes come in contact with the rim. The connection of the driving wheel brake is made by means of a neat chain working over a grooved piece of metal at the bottom of the steering head, and this is continued by a wire running parallel with the down tube to the under part of the crank bracket, where it is again connected by a chain to another wire fork similar to that on the front wheel, where the

brakes are secured in exactly the same manner. One very good feature of this brake is that the adjustment can be so regulated as to bring the greatest amount of pressure to operate on the driving wheel, while the brakes on the front wheel are applied moderately, and act as a splendid auxiliary without any danger of the wheel becoming locked and the rider pitched over the front of the machine.

Herrman From Germany Here.

Herr Herrmann, manager of the Wolff-American depot in Hamburg, Germany, which was taken over by the Bretz Cycle Mfg. Co., of Syracuse, when the Wolff-American rights were acquired, was in Syracuse last week for consultation with the Bretz people. The depot will be continued, with Mr. Herrmann in charge, and in addition to the Wolff-American the Bretz Co.'s new wheel, the Regal, will be carried.

To a Bicycling World man Mr. Herrmann said that while the howl raised by the German trade had aroused a deal of prejudice against the American bicycle, its superiority over the German article is generally recognized and admitted. While the German makers are still crying out for a higher tariff, Mr. Herrmann does not believe the cry will be heeded by the Government, or, at least, not in the near future.

About Trade in Russia.

In his annual report, just issued, the British Consul says: "The bicycle trade shows a falling off, so far as British machines are concerned, but America supplies a large number of cheap machines. Well known makes appear still to be bought by those who do not mind paying a high price for a good machine, but what was a few years ago a good trade is being ruined by competition. In order to sell, small dealers part with their cycles on the instalment system of payment, granting almost any terms, and the result is that very often they are defrauded by the purchaser, and consequently cannot pay the maker."

A Health Resort.

Excelsior Springs, Mo., on the Kansas City line of the Chicago, Milwaukee & St. Paul Railway, has become one of the leading all-the-year-around health and pleasure resorts in the United States. The use of its waters has benefited a great many sufferers.

The Chicago, Milwaukee & St. Paul Railway has just issued a finely illustrated booklet, describing the resort and telling of its advantages, which will be sent free on application to Geo. H. Heafford, General Passenger Agent, Chicago, with two-cent stamp inclosed for postage. ***

"Motocycles and How to Manage Them." The only book of its kind in existence. Price, 75 cents. For Sale by The Goodman Co.

The Week's Exports.

Exports of bicycles and cycle material from the port of New York for the week ending November 27, 1900:

Antwerp—1 case bicycle material, \$10.

Antwerp—21 cases bicycle material, \$410.

Argentine Republic—15 cases bicycles, \$905; 1 case bicycle material, \$12.

Arnheim—11 cases bicycles, \$450.

Brazil—2 cases bicycles and parts, \$216.

British West Indies—5 cases bicycle material, \$68.

British Australia—5 cases bicycle material, \$47.

Bremen—1 case bicycles, \$50; 1 case bicycle material, \$125.

British Possessions in Africa—103 cases bicycles, \$7,858.

British East Indies—6 cases bicycle material \$531.

Bjorneborg—1 case bicycle material, \$100.

China—4 cases bicycles, \$338; 1 case bicycle material, \$125.

Copenhagen—49 cases bicycle material, \$1,187.

Cuba—7 cases bicycle material, \$132.

Cairo—9 cases bicycles, \$160.

Dutch East Indies—15 cases bicycles, \$1,750.

Genoa—2 cases bicycles, \$51; 17 cases bicycle material, \$536.

Harve—2 cases bicycles, \$100; 10 cases bicycle material, \$215.

Helsingfors—2 cases bicycles, \$385; 8 cases bicycle material, \$749.

Hong Kong—5 cases bicycles, \$935.

Hamburg—63 cases bicycles, \$1,355; 28 cases bicycle material, \$753.

Japan—61 cases bicycles, \$783.

London—141 cases bicycles, \$1,696; 22 cases bicycle material, \$1,052.

Liverpool—7 cases bicycles, \$220; 5 cases bicycle material, \$63.

Lisbon—9 cases bicycles, \$259.

Marseilles—1 case bicycles, \$30.

Newcastle—1 case bicycles, \$30.

New Zealand—36 cases bicycles, \$1,492; 3 cases bicycle material, \$87.

Naples—6 cases bicycles, \$35.

Rotterdam—6 cases bicycles, \$205; 13 cases bicycle material, \$390.

Southampton—1 case bicycles, \$25; 16 cases bicycle material, \$2,800.

St. Petersburg—10 cases bicycle material, \$560.

Siam—2 cases bicycles, \$60.

Uruguay—24 cases bicycles, \$650.

The Retail Record.**CHANGES.**

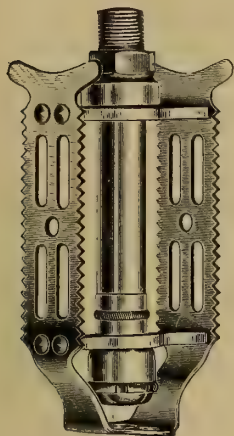
South Glens Falls, N. Y.—Howard Sherman, closed.

Selma, Cal.—Simpson Bros., sold out to Reed & Prince.

FIRES.

San Diego, Cal.—Young & Churchill; loss about \$600; insurance, \$450.

HOW TO TELL A HIGH GRADE BICYCLE.

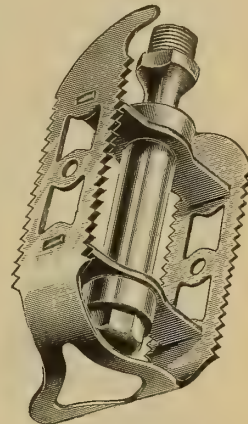


Of course, you can't tell what is under the enamel, but the equipment rarely fails to tell the tale. Any maker who pinches pennies out of the equipment will pinch it out of the material that is covered by the enamel. If this suggests anything to you,

**Ask Yourself Why Curtis Pedals
are Never Found on Cheap Bicycles.**

THE CURTIS PEDAL IS AN UNFAILING INDEX
TO THE HIGH GRADE WHEEL.

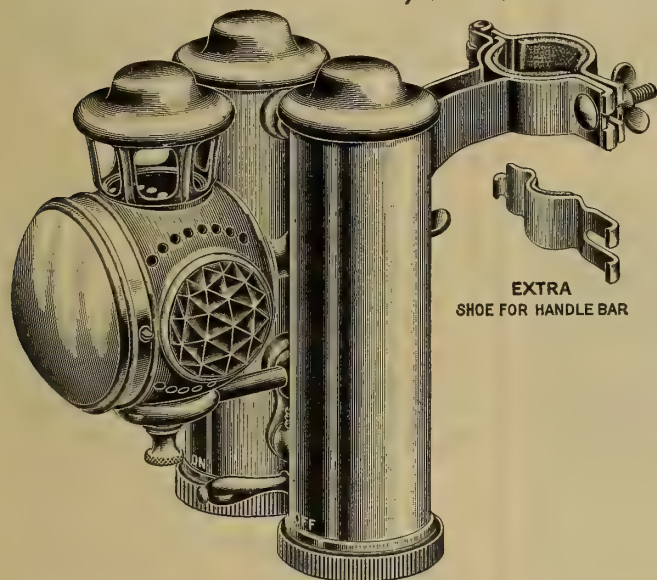
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REED & CURTIS MACHINE SCREW CO.,

WORCESTER, MASS.

WINNERS IN A BIG FIELD, of the "FREE FOR ALL" FOR 1900.



DUPLEX GAS.

Distancing all competition, and winning out easily under a pull, without even being paced by an "ad."

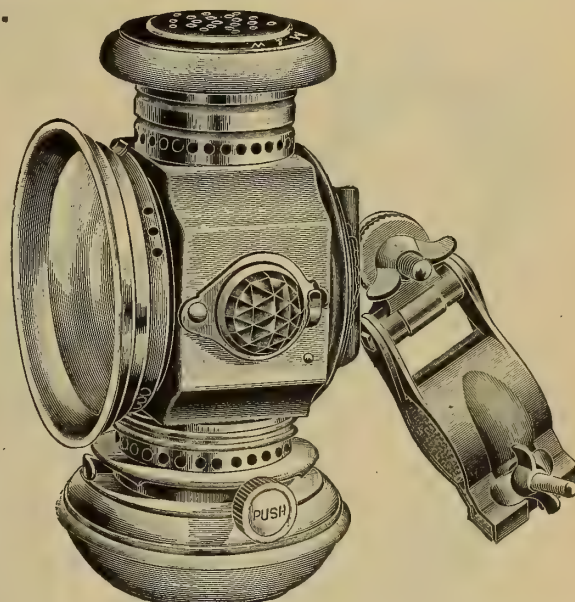
This famous, well-matched pair, now fully seasoned, will be pushed to

**BREAK ALL RECORDS
DURING 1901.**

THE
**MATTHEWS & WILLARD
MFG. CO.,
WATERBURY, CONN.**

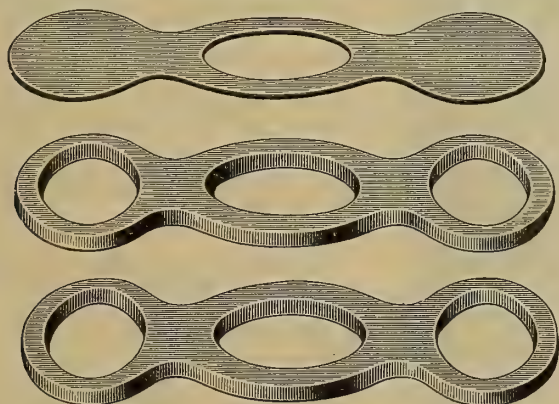
New York Office
40 Murray St.

Illustrated catalogue free.



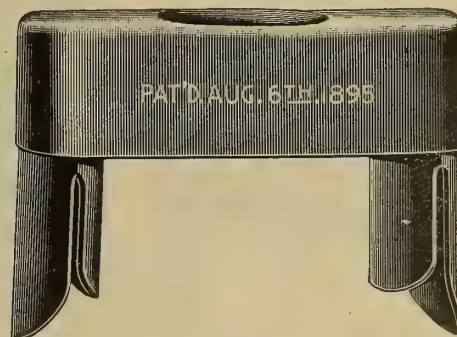
M. & W. OIL.

PLATE CROWN No. 2000.



Made for 1 in. center and 7-8 in. sides. 2 in. between sides.
Will furnish plates separately for building 3-plate crowns.

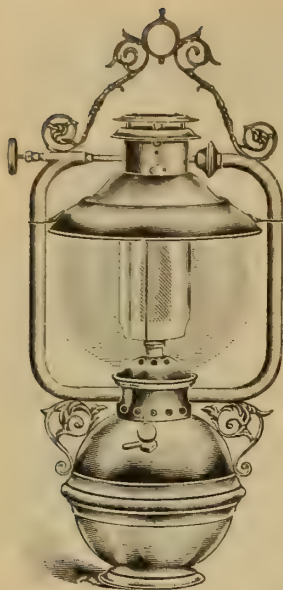
BOX CROWN No. 2004.



Made for 1 in. or 1 1/16 in. center and 1 in. sides. 2 in. between sides.
Fully reinforced in body of crown, also in fork sides.

SEND FOR CATALOGUE OF 1901 PARTS.

THE H. A. MATTHEWS MFG. CO., SEYMOUR, CONN.



Outdoor.

THE NULITE

750 CANDLE POWER

ARC ILLUMINATORS

Produce the finest artificial light in the world
SUPERIOR TO ELECTRICITY OR GAS
CHEAPER THAN KEROSENE OIL

20th Century Revolution in the Art of Lighting

They darkness into daylight turn,
And air instead of money burn.

No Smoke. No Odor. No Noise. Absolutely Safe.

They are portable. Hang them anywhere.

WE ALSO MANUFACTURE

TABLE LAMPS PENDANTS WALL LAMPS
CHANDELIERS, STREET LAMPS, ETC.

The BEST and only successful

Incandescent Vapor Gas Lamps

made They sell at sight. Nothing like them.

A SNAP FOR BICYCLE DEALERS.

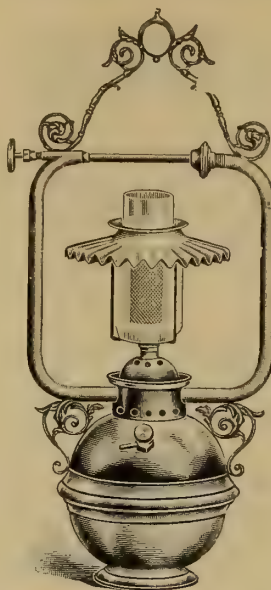
Agents wanted everywhere.

Write for catalogue and prices.

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Indoor.

Worth Sixty Millions.

It is interesting to note that the world's demand for india rubber creates a supply of 125,000,000 pounds per annum. This huge mass is valued at about \$60,000,000, and at the present time the countries financially interested in the growth of the lactiferous plant are Brazil, Bolivia, Guiana, Central America, Madagascar, India and Ceylon. More than half the total supply comes from the Amazon district.

To Acquire a Motorcycle Education.

"Motorcycles and How to Manage Them."

The name explains the nature of the book.
Price 75 cents. For sale by The Goodman Company. * * *

HAND AND FOOT PUMPS,

Oilers, Repair Tools,
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SPECIALTIES to order
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Factories: Waterbury, Conn.
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423 Broome St., New York.



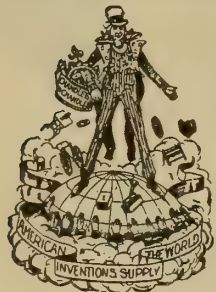
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The Melvin
Automatic
Coaster
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Thoroughly reliable, having been tested for two seasons.
Write for catalogue and prices.

F. M. SMITH & BRO., - St. Paul, Minn.

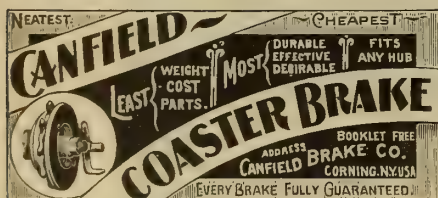
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wheels must have the
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MORSE TWIN ROLLER CHAIN



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Rocker Joints. Insist on having the
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CREST MANUFACTURING CO.
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THREE, FOUR AND FIVE HORSE-POWER MOTORS.
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Sheet Steel Bicycle Parts.

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Have you investigated the

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Hydro=Carbon Motor?

We build 1 1/4 H. P. Motors, air-cooled; 2 H. P. Motors, air-cooled; 2 3/4 H. P. Motors, air-cooled; 4 H. P. Motors, water-cooled.

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write for prices and particulars of the
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BALL RETAINER
(The Original)

BEST ANTI-FRICTION.

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With the approach of winter users of acetylene gas lamps are becoming concerned about the freezing of the water carried in their lamps.

A rider who has given such lamps extended use says that there is not the least fear of it freezing when the lamp is lighted, and he has not found it do so when unlighted if the machine is in use, as the vibration seems to keep it all right; but it will freeze if the lamp be left stationary out of doors. In very severe weather, indeed, it is best to keep the tank empty till lighting-up time, but if the worst comes to the worst and the water should freeze it can soon be thawed by putting the lamp in one's pocket (if it is big enough), or by expectorating slightly on the carbide, just enough to generate gas, and as the burner is under the water tank the heat from it when lighted soon thaws the water.

Of course, the better way is to take the lamp indoors and thaw it, but this cannot always be done if lamp-lighting time finds the rider out in the open. Some careful souls carry the water in a small pocket flask, and this is a good plan, but it is too much like trouble for most people.

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

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If we spent

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in advertising some people would still use cheap and leaky oilers. Spend a few cents more and get a **"PERFECT"** Pocket Oiler. You will be well repaid.



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MORROW
COASTER AND BRAKE.
Over 100,000 Sold
Last Year.
Everyone Giving Satisfactory
Service.
Make Your Cycle Saleable and
Desirable by Fitting it with
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ECLIPSE MFG. CO., ELMIRA, N. Y.
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THE MOTOR WORLD

Will Interest You.

IT'S NOT LIKE THE OTHER KIND.

It's readable,
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Specimen Copies Gratis.

YOU CAN'T TELL THE AGE OF A BICYCLE

by the teeth of its sprocket but you can tell its quality by the chain that runs over them.

If it's a Duckworth

you may be sure that the makers of the bicycle are not building on the Cheap John plan. If the bicycles you handle are not fitted with Duckworths, specify that chain when you order. If it is refused you, you will have a certain cue to the quality of the wheel.

In the Duckworth factory, it is not how cheap, nor how many, but how good. Write for catalogue and prices.

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NEVER LEAK**STOPS LARGE PUNCTURES.**

This is the only fluid that can be legally used in pneumatic tires. Suits now pending

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THE AUTOMOBILE AUTHORITY OF AMERICA

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Due Albany	4.10 P.M.	7.35 "
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Tickets of agents of I. C. R. R. and connecting
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THE BICYCLING WORLD

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Vol. XLII.
No. 10.

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There's money in it—lots of it.

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And you might as well do it to-day, too.

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AN AMERICAN
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COMBINES
CUSHION FRAME,
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Cycles, Motor Cycles, Automobiles

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ADVERTISEMENT SUGGESTED BY THE TRUE FACTS IN THE CASE.

Where's the Profit?

Admitting you can buy Oil Lamps at 15c. or 25c.
lower price than

This One



Admitting you can buy Gas Lamps at 15c. or 25c.
lower price than

This One



But you mustn't forget when you TRY to unload (with a big accent on the try)

YOU MUST TAKE OFF 50c. or \$1.00

Where's the Profit?

The answer to the above Conundrum is easy: For QUICK SALES AND PROFITS, and general all around satisfaction, handle and use

The 20th Century

Oil and Gas Headlights

For Bicycles, Carriages and Automobiles

Manufactured by the largest and most experienced Bicycle Lamp Company in the world, and sells at prices in competition with anything

EXCEPT FAKES AND FAILURES

ELECTROTYPES.

The trade supplied without cost for catalogues, circulars, cards and general advertising purposes. All Dealers who can use any variety of these electrotypes to mutual advantage should send direct to us for them.

*The 20th Century Headlights
for this the Twentieth Century*

SEND FOR
LATEST CATALOGUE.

20th CENTURY MFG. CO.,
17 Warren Street,
New York.



HOT AIR

IS ALL MOST SALESMEN
CAN GIVE YOU
ABOUT BICYCLES

THE RACYCLE SALESMEN
GIVE ONLY THE
COLD ICE FACTS

KREHBIEL CO. CINC.

Courting Criticism.

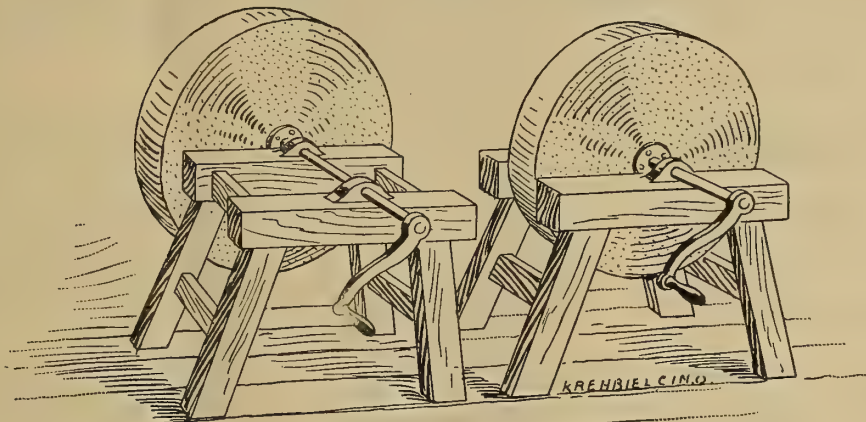
Inviting Inspection.

Primed With Information.

Prepared to Answer Questions.

THE RACYCLE.

Our
Crank
Hanger
Does
It.



Does
What?
Makes It
Run
Easy.

No. 1 (Bicycles) No. 2 (The Racycle)

Which Will Turn the Easier?

DON'T BE A QUITTER.
TRY THE RACYCLE AND HELP OTHERS TO QUIT.

THE MIAMI CYCLE & MANUFACTURING COMPANY, MIDDLETOWN, OHIO,

14 MONTHS FOR THE PRICE OF 12

To all one year
Subscribers, booked
between now and January 1st,

The Motor World

Will

BE SENT FREE

during the remaining
months of 1900.

WE PROMISE

them more than their money's worth
in every issue.

Send your \$2.00 now
that your subscription may date
from No. 1, Vol I.

The Motor World,

123-125 TRIBUNE BUILDING, NEW YORK.

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Cheapness without
regard to Quality seems
to be the aim of most
manufacturers who
make bicycles to sell to
the Jobber.

You know what this
means if you handle
such lines: trouble, lost
sales and lost customers.

We have a reputation
to sustain and are doing
it in building the 1901 pat-
terns of the

SNELL

A complete line of
Roadsters, Racers and
Cushion Frames.

Write us and we will arrange to
show you samples.

THE SNELL CYCLE MFG. CO.,

TOLEDO, O.

Pacific Coast Branch,

Portland, Ore.

Another Victory in United States Court for Goodyear Tire & Rubber Co., Akron, Ohio.



*The Goodyear
Tire & Rubber Co.
has fully demonstrated
its ability to
take care of itself
and to carry out
its agreements
with its customers.*



[From Akron Beacon-Journal, Nov. 25, 1900.]

A VICTORY.

GOODYEAR TIRE & RUBBER CO. GRANTED RESTRAIN- ING ORDERS.

**Tillinghast Company Sought to Re-
voke Its License.**

Judge William R. Day, of the United States Circuit Court, granted the Goodyear Tire & Rubber Co., of this city, an injunction Monday, restraining the Tillinghast Company from revoking their license. In July of this year the Tillinghast Company filed a suit in the United States Circuit Court against the Goodyear Tire & Rubber Co. to restrain them from selling any goods manufactured under the Tillinghast patents, until the Goodyear Rubber Co. paid it certain royalties, which it alleged were due. The Goodyear Company fought the case and won. About a month ago the Tillinghast Company notified the Goodyear Company that its license to use the Tillinghast patents would be revoked unless the alleged royalties were paid. The Goodyear Company immediately filed a cross bill in the United States Circuit Court, asking the Court to grant a temporary restraining order until the original suit is settled.

Gen. A. C. Voris went to Canton Monday and argued the case before Judge Day, and he granted the injunction.



*Judge Wm. R. Day
(U. S. Dist. Court,
Northern Dist. Ohio)
has decided that no
old, disputed claims
for royalties
can be used
to forfeit the license
of the Goodyear
Tire & Rubber Co.
to use the
Tillinghast patents.*



The Goodyear Tire & Rubber Co. has undisputed right to use the Tillinghast patent, and besides it has a tire and patent of its own (April 3, 1900, to F. A. Seiberling), which makes it absolutely independent of any other manufacturer or patent-owner.

Jobbers and dealers profit by handling GOODYEAR TIRES. They are free from litigation, and are quick sellers.

THE GOODYEAR TIRE & RUBBER CO.,

AKRON, O.

1901 FAVORITE BICYCLES

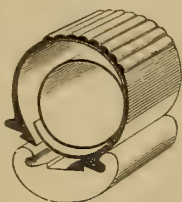
MODELS ARE READY.

You cannot afford to pass us the coming year. No Juvenile on the market will approach the 1901 FAVORITE in
QUALITY OR PRICE.

You will want Spokes or Nipples for 1901. Do not buy until you have our proposition.

TOLEDO METAL WHEEL COMPANY,

TOLEDO, OHIO.



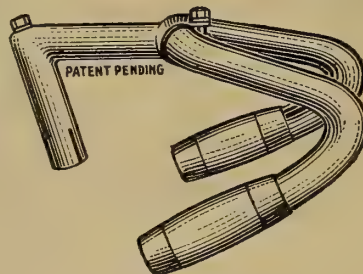
**A TIRE
THAT HELPS
TO SELL THE WHEEL**

BECAUSE

It is **DETACHABLE**, and therefore easy to repair.
It is handsome in appearance.
It is of the highest grade.

G. & J. TIRE CO.,

INDIANAPOLIS.



**IDEAL
HANDLE BARS**

FOR THE COMING SEASON

will be made with forward extension $2\frac{1}{2}$ and $3\frac{1}{2}$ in. forward throw, and also with the Cope-land patent stem, which gives it a 1 in. forward or backward throw. Stem made of one-piece forging, and bar made of best seamless tube. Our prices are so low this season you cannot afford to use inferior goods. Get sample and quotation.

We Guarantee our Bars to be the best finished Bars on the market.

Sole Manufacturers, IDEAL PLATING CO., No. 3 APPLETON STREET, BOSTON, MASS.



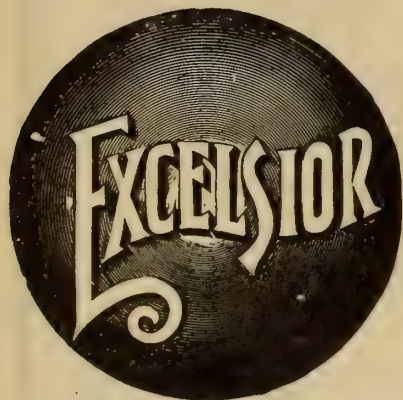
Stop Chewing the Rag.

Next year will be one of the best you have ever experienced providing you get down to business and secure the **MONEY MAKING LINE**,

Mitchell Bicycles.

With these wheels it's up to you whether you have a profitable year or not. Do we hear you ask for information? Don't hesitate; lose no time; we are at your service.

WISCONSIN WHEEL WORKS, Box W, Racine Junction, Wis.



STEEL BALLS

The Best in
the World.

EXCELSIOR MACHINE CO., BUFFALO, N. Y.

The Central Distributing Co., Sole Selling Agts., 302 Mooney-Brisbane Bldg., Buffalo, N. Y.

Here's a Winner.



We have just been allowed a strong patent on the only Inner Tube made with reinforced ends that positively will not blow out at those points.

Write for full particulars and prices.

**PENNSYLVANIA RUBBER COMPANY,
ERIE, PENN.**

Bicycle, Carriage, Automobile Tires and Accessories. Mechanical Goods.

DAYTON BICYCLES FOR 1901

MODEL 50 || Men's Roadster, 1 1-4 inch tubing, flush joints, flush head fittings, two piece crank. || \$40

MODEL 51 || Ladies', 1 1-8 inch tubing, flush joints, double curved frame; light, graceful, elegant. || \$40

MODEL 52 || Special Men's Roadster, 1 1-8 inch tubing, solid spider crank; special finish, finest equipment. || \$50

MODEL 53 || Track Racer, 1 inch tubing; specially built throughout for lightness and speed. || \$50



THE NEW DAYTON RACER.

Write for 1901 Catalogue.
Now Ready.

Models 50, 51 or 52 can be furnished with Pneumatic Cushion Frame at an additional cost. :: ::

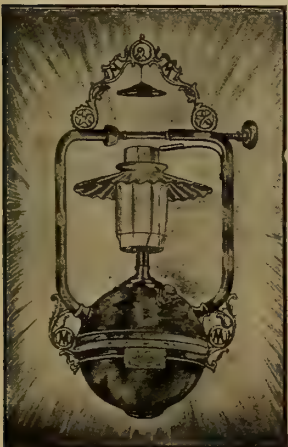
THE DAVIS SEWING MACHINE
COMPANY :: DAYTON, OHIO.

J. H. T. MARTIN.

J. H. MOREHEAD.

THE M. & M. ARC LAMP.

(TRADE MARK)



STORE LAMP.



STREET LAMP.

No
False
Claims.
An
Actual
450
Candle
Power
Light.
Written
Guarantee
with
Every
Lamp.

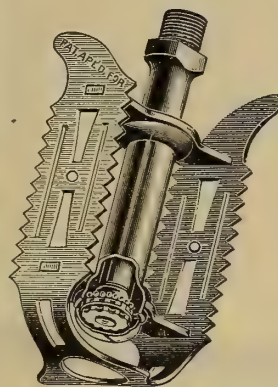
We do not claim 750 candle power and give 300. We make more light than any other gasolene lamp made, and consume less fuel. Two years practical commercial service. We are the originators. Others try to copy. Passed by Underwriters for entire U. S. The Lamp is portable; carry it anywhere. **We guarantee** to produce as much light as any commercial electric arc. **Write for particulars.**

To show our good faith and the superiority of our light, we offer to ship a lamp for approval.

MARTIN & MOREHEAD, 51-57 W. Washington Street, CHICAGO, ILL.

.. JOBBERS AND MANUFACTURERS ..

They have all had their say in regard to their pedals and prices, but the



Bickel Pedal

beats them all in prices, when you consider our goods, which are made of the best of steel, and fully guaranteed,

Look at our adjustment and compare it with others. No more loose cones by using our pedals, as our patent washer has two teeth which engage the cone and nut, and we guarantee them to stay there.

Write us to-day and get an eye-opener in regard to our prices. Electros may be had for the asking.

BICKEL MANUFACTURING CO.,

Shelburne Falls, Mass.



HARTFORD TIRES

Are the embodiment of careful study and long experience, and can be depended upon like a faithful friend.

There are None Better
and Few as Good;
None so Well and Favorably Known.

The combination of good rubber, fine fabric and skillful workmanship has made them

The Acknowledged Standard
Throughout This Broad Land.

The HARTFORD RUBBER WORKS CO.
HARTFORD, CONN.

PERFECT GEARS

PERFECTLY MOUNTED

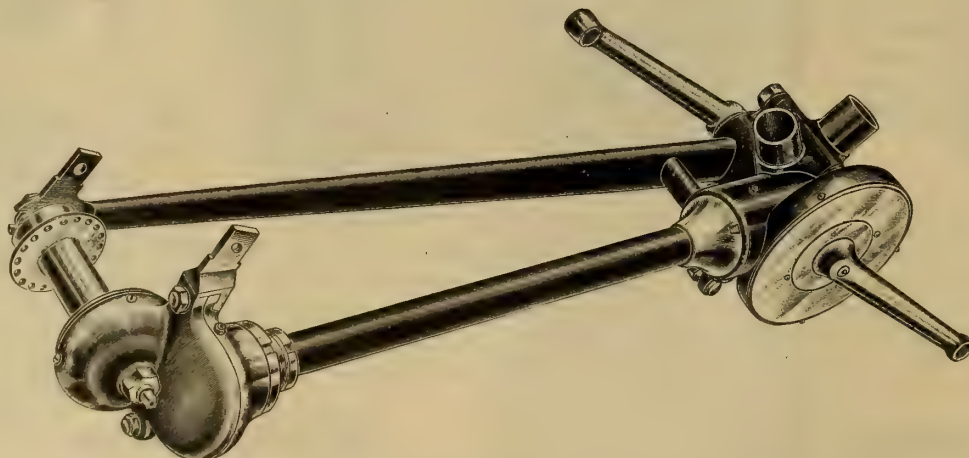
VICTORY IS ASSURED FOR THE CHAINLESS.

We can now supply manufacturers with GEARS THAT ARE RIGHT, MOUNTED IN BEARINGS THAT ARE RIGHT. The Gears are the famous LELAND-FAULCONER kind, ground after hardening. The Mountings are made Accurately. They locate the Gears Properly. Every manufacturer, dealer and rider knows that the Chainless Bicycle is as far ahead of the old style machine as the "Safety" was superior to the "Ordinary." OUR EQUIPMENT is at the FOREFRONT OF CHAINLESS CONSTRUCTION.

IT PAYS TO PUSH THE BEST.

Our compact,
rigid, accurate
mountings and
gears speak for
themselves.

ARGUMENTS
ARE
UNNECES-
SARY.



LELAND & FAULCONER MFG. CO., DETROIT, MICH.

A combination that
will sell
assures profits.

WE ARE
NOW ENTER-
ING
ORDERS
FOR THIS
EQUIPMENT.

Send your order
before
it is too late.

THE SEASON
OF 1901
IS ADVANCING.

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., December 6, 1900.

No. 10.

GOODYEAR SCORES

Court Prevents the Cancellation of its License—The Facts in the Case.

Again has the Goodyear Tire & Rubber Co. scored in its fight with the Single Tube or Tillinghast tire interests.

First the Single Tube Co. sought to obtain an injunction restraining the Goodyear people from making or selling single tube tires because of an alleged violation of its license. Goodyear fought, of course, and won; the injunction was refused by the Court.

Then, as was reported exclusively in the Bicycling World last week, the Single Tube Co. gave notice of its intention to cancel the Goodyear license. Goodyear at once applied to the same court for a restraining injunction, and last week the injunction was granted.

Some misunderstanding as to the cause of the suit having arisen, the Goodyear Co. makes the matter plain in the following statement:

"The Single Tube Automobile & Bicycle Tire Co. had not cancelled our license, but had given us notice that they intended so to do if we did not pay royalties on optional contracts made prior to January 1 last, which, by the terms of our license agreement, are exempt from payment.

"The Single Tube Company sued for these royalties in July last, and recently gave notice of intention to revoke license, doubtless with a view of forcing payment of their claim that is fairly in dispute. To protect itself the Goodyear Tire & Rubber Company asked for a restraining order preventing the Single Tube Company from revoking its license, which order Judge Day on November 16, 1900, granted temporarily, until a hearing could be had with both sides present.

"This hearing was held on Monday last, at which time the temporary order was made perpetual pending an adjudication of the question of royalties on optional contracts referred to.

"This leaves matters in such a position that our license cannot be cancelled pending the determination of the question of royalties referred to, and if the judgment of the Court be against us, by a simple payment

of whatever amount the Court may fix for past royalties our license is left unimpaired."

What move, if any, the Single Tube Co. will now make cannot be learned. Colonel Theodore A. Dodge, its president, is ill, and no one in his office in this city would speak on the subject.

Change of Interests in Jackson.

There is organizing in Jackson, Mich., the Bicycle Sundries Company, the projectors of which have already purchased the entire interests, patents and business of what has been heretofore known as the Jackson Automatic Coaster & Brake Co.

The new concern will continue the manufacture of coaster-brakes, and will market one what is said to be an entirely new device of the kind, and one which is claimed to be "the most positive brake ever invented," 10 or 15 pounds back pedal pressure being sufficient, it is asserted, to lock the wheel, which releases itself the moment the pressure is withdrawn.

Some of the special features is that it gives 2½ inches space between the spoke flanges and brakes from the end opposite to the sprocket, its size being such that it can be put into any wheel without changing the spokes.

In addition to this coaster-brake the company will manufacture a coaster that will fit any bicycle hub, to be used in connection with a hand brake. Further, it is their intention to handle all classes of bicycle sundries and accessories, as jobbers. W. R. Reynolds, jr., who is described as one of Jackson's most able financiers, is to act as secretary, treasurer and general manager of the new concern. George Brady, of the same city, will be its president.

Ariel Gives Way to Cereal.

Press dispatches from Goshen, Ind., state that the plant of the Ariel Cycle Mfg. Co., of that place, has been sold to the Puritan Cereal Food Co., for \$15,000. The concern was at one time well known in the trade, but of late years has almost dropped out of sight.

Fred. R. Bump, formerly of the Waltham Mfg. Co., has been added to the staff of the Davis Sewing Machine Co.'s bicycle department.

MARVELLOUS MOTOR

Two Jerseymen Strike Out on New Lines, and Claim to have "Hit It."

If the motor does one-half what is claimed for it, Frank N. Foye and Carl F. Bergmann, of Jersey City, N. J., have an invention that has no uncertain future.

Briefly, it is a motor that forms a part of the driving wheel, which can be adapted to the use of either steam or gasoline, and may be applied to either motorcycle or carriage.

The experimental model was employed on a tricycle, and is said to have given splendid results in tests covering several hundred miles. This motor was 10½ inches in diameter, "made up of single acting cylinders 2 inches in diameter and with 1¼-inch stroke"; it makes 400 revolutions per minute.

"In an ordinary engine," says the description, "the cylinders are stationary while the crank shaft rotates; in the Foye motor the cylinders rotate around a stationary crank shaft. As the cylinders are single acting—that is, taking steam at one end only—extreme simplicity results. The pistons are in pairs, working in cylinders directly opposite each other, coupled to a common crosshead; the crank shaft, being stationary, pressure of crossheads against it causes the driving wheels to revolve.

"Steam is admitted to the steam chest through a two-way valve, which, in connection with a similar valve for the exhaust, placed at the opposite end of the steam chest, and operated by the same lever, serves the double purpose of throttle and reversing mechanism. While one cylinder is taking steam the other is exhausting.

"The facility with which the engine can be stopped, moved a fraction of a revolution or reversed," concludes the description, "is really extraordinary."

While the experimental motor is for steam, the inventors have designed a gasoline motor of similar construction; in this it is claimed that three explosions can be secured for every revolution.

The Canada Cycle & Motor Co., Ltd., have opened a European branch at 57 Holborn Viaduct, London.

COAST CONVERSATIONS

Motocycles and A. B. C's. New Export Arrangement Cause Talk in 'Frisco.

San Francisco, Nov. 30.—“I know wheelmen in San Francisco who were wheelmen here in the pioneer days, before we ever heard of such a thing as a safety bicycle,” replied George A. Morrill, manager of the Cleveland department's San Francisco branch, to the *Bicycling World* man's queries.

“I well remember, before the advent of the safety, several prominent wheelmen who gave up wheeling for good, but who, some of them, hurried back into the ranks as soon as the safety came into prominence, the balance returning on the introduction of the pneumatic tire. And it has been very interesting to note the renewed enthusiasm displayed by these old-timers, which, by the way, continued until up to within the last year, when again it was noted to be on the wane, numbers of the boys, especially the old riders, taking up yachting for a pastime.

“And now, what is the next easy thing in the process of evolution. While the automobile has interested some of these retired friends and cycling associates of former days, and while I believe when the price gets within easier reach of the ordinary man's pocket that more of these veterans will be driving the horseless carriage, yet I am of the opinion that before all this comes to pass we will again have something easy for them in the way of a motorcycle, and that this is going to be the attraction that will cause them once again to rally with us in the cycling fold.

“I believe the motor tricycle is destined to do more toward putting new life into the bicycle business than the introduction of anything else. The question in my mind at present is that if the price can be brought within reach of those riders who have become tired of working their way on a bicycle whether they will take to the motor tricycle, and my inclination is to believe that they will. In so far as the continued exertion phase of the question is concerned, it certainly fills the bill.

“I am firmly convinced that when the manufacturers get these motorcycles down to a fine point—which I believe they will do—and the price materially reduced—which I believe will be the case—the demand will not be lacking.”

During a recent afternoon two of the A. B. C's prominent Pacific Coast branch agents were not only found at a sunny cigar store corner enjoying a two-for-a-quarter smoke, but were found not averse to store talk, which almost from the start centred in the growing export feature of the trade.

“It's all right,” said one, “the large number of crates of bicycles that are going out from this port in about every cargo for

foreign countries and our recent island possessions, but it's a blankety blank shame that there are evidences in sight that look like a design to formulate a line of action that will curtail the Pacific Coast agents' hitherto enjoyed rights to this export trade by transferring it all to the Eastern home offices.

“Look at the absurdity of the contemplated thing! For instance, a hurry-up order comes from Honolulu for fifty or one hundred bicycles—business we have often attended to by having the order in cargo that would be afloat and headed for Honolulu within from one to two days. Under the talked of new arrangement about direct export business to be inaugurated, the Honolulu order would pass us in its overland voyage and the ‘hurry-up’ machines would arrive on this coast for shipment several weeks after we could have attended to it right here. Isn't the idea enough to jar one's business instincts?”

Need not Take out License.

Efforts made by the Denver (Col.) Fire and Police Board six months ago to place bicycle repair shops under police surveillance by compelling them to take out licenses have failed. The case of G. E. Hannan, which was taken into court as a test of the Board's powers, having been decided against the city, the Board last week refused to grant licenses to five dealers who had applied.

County Judge Steele, who decided the Hannan case, held that a dealer in second-hand goods must have a fixed place devoted to the second-hand business, which bicycle dealers declared they had not, their principal vocation being the repair of old wheels. The police must now discover some other scheme by which to trap bicycle thieves, and no further inspection of the repair shops for this purpose is probable.

The White Star Falls.

An outcome of the sensational defalcation of F. M. Brown, the Newport, Ky., bank cashier who looted the bank to the tune of \$200,000, is the appointment of J. J. Youtsey as receiver for Brown & Smith, makers of the White Star gas lamp, and an application to have the concern's affairs wound up.

Suit was brought by Edward F. and Bernard Smith, who allege that they have a one-half interest in the business of manufacturing acetylene bicycle lamps, and that the defendant, Brown, is in possession of the other one-half interest; that one Tucker has sued out an attachment against Brown's interest, and that the Sheriff is about to take possession of the firm's property, so that the business will be seriously injured. They further allege that the defendant, Brown, is insolvent, and that the partnership must be wound up and dissolved. Wherefore plaintiffs pray for dissolution of the partnership, a settlement of the company's affairs and reference of the business to the receiver of the Court.

BROOKLYN'S ORGANIZATION

Secretary Molter Says That Next Season it Will be More Active.

In the retail trade the advantages of organization are being generally recognized. As a means of successfully combating the abuses of the trade no method having equal efficiency has ever been tried. All that is required are shrewd management and a live interest on the part of the members; with these the objects of association are almost certain to be attained.

Such has been the experience with the Brooklyn Cycle Dealers' Association. Formed last summer, when the cream of the business had already been skimmed, it was impossible to accomplish everything that comes within the scope of such an association. Yet considerable headway was made and much good accomplished; and now the thoughts of its members are directed to next year, when the full power of the organization can be exerted to mitigate—if not remove entirely—the evils complained of almost everywhere. There is little reason to doubt that a great advance will be made.

As Secretary and Treasurer W. A. Molter, of 1144 Bedford avenue, was one of the prime movers in the formation of the association, the *Bicycling World* man recently approached him in order to see what measure of success had attended it, as well as to learn what plans it had in view for next season.

“The Brooklyn Cycle Dealers' Association,” he said, “is a permanent organization, with thirty-nine members. A number of meetings have been held, and we are now waiting to see how many dealers will remain in the business before arranging for next season's work.

“As to what has been accomplished, it has been quite up to our expectations, in spite of the fact that it was so late in the season before we organized. One thing all our members have noticed is that it has seemed to stop people from going from store to store, seeing where they could get a job done the cheapest, as, if they went around, they found the same price charged, according to the repair price list furnished to each member.

“But next season we hope to not alone regulate the price on repairs, but also on sundries.”

Racey Seeks Relief.

Joseph D. Racey, now of 90 West Broadway, New York, has filed a petition in bankruptcy, with liabilities of \$7,699 and no assets. He was formerly of Whitehead & Racey, who did business as the New York Remedy Company, but dissolved in 1899. The debts were chiefly contracted in 1893 at Orange, N. J., in the bicycle business.

OCTOBER'S EXPORTS

Fifty per cent. Less Than Last Year but Remarkable, Nevertheless.

In the matter of cycle exports October was a remarkable but not a particularly proud month; in fact, the figures for the month, which have just been made public, mark the lowest notch yet touched; they total just about 50 per cent less than the shipments during the corresponding month of the previous year, and for the first time fall below the \$100,000 mark.

The most striking feature of the month was the \$6,000 increase in the exports to the United Kingdom. The only other material gains were in Africa and the Philippines, although a jump in the shipments to Hong-Kong and the disturbed Chinese Empire from \$1,114 in October, 1899, to \$2,929 in October, 1900, is worthy of remark; in fact, it is a remarkable state of affairs that only in the four countries which are engaged in war were increases recorded.

The losses were heavy and widespread. For the first time in months Japan records a decrease, while Germany, "Other Europe," Cuba, Argentina, the British East Indies and Australasia contributed the particularly large losses. The total for the ten months ending with October naturally reflects the monthly conditions, as the following summary shows:

Exported to—	October—		—Ten months ending October—		
	1899. Values.	1900. Values.	1898. Values.	1899. Values.	1900. Values.
United Kingdom.....	\$10,734	\$16,117	\$1,597,340	\$636,739	\$409,221
France	3,215	1,816	463,535	402,896	176,207
Germany	22,882	6,928	1,411,961	754,551	322,638
Other Europe.....	23,873	14,232	892,093	841,106	599,814
British North America.....	7,720	7,173	561,804	518,020	352,523
Central American States and British Honduras.....	340	464	6,535	4,483	2,064
Mexico	2,064	733	52,983	37,601	12,249
Santo Domingo.....	25	....	598	323	232
Cuba	13,039	1,235	3,930	77,543	65,133
Porto Rico.....	167	....	2,351	2,478	1,461
Other West Indies and Bermuda.	4,753	3,191	60,403	53,743	38,866
Argentina	26,080	1,934	101,512	258,598	70,231
Brazil	2,521	1,402	88,701	28,914	16,794
Colombia	848	49	7,372	7,638	3,470
Other South America.....	5,943	2,457	42,747	55,881	35,424
Chinese Empire.....	460	1,679	20,721	19,883	19,645
British East Indies.....	23,645	2,130	120,357	117,486	50,697
Hong-Kong	680	1,250	9,289	8,234	7,696
Japan	11,619	7,690	114,894	98,245	220,769
British Australasia.....	23,447	8,305	185,150	196,448	177,773
Hawaii	3,214	....	....	40,233	32,473
Philippine Islands.....	130	11,783	60	1,281	54,787
Other Asia and Oceania.....	3,947	1,025	65,798	39,495	22,291
Africa	4,697	7,195	146,380	141,304	53,296
Other countries.....	....	....	1,699	274	417
Totals	\$196,043	\$98,788	\$5,958,213	\$4,343,397	\$2,746,171

England's Exports Still Shrinking, too.

While America's exports of cycles have shrunk sadly, England's are worse. For the ten months ending with October the British shipments abroad totalled £446,946, as against £576,924 for the corresponding period of 1899 and £813,570 for 1898.

Claim and Counter Claim.

Diametrically opposed are the allegations of George W. Stilson, plaintiff, and N. Bussendorfer and Henry Edwards, defendants, all of Buffalo, in a suit brought before Justice Kruse in Part II of the New York Supreme Court to recover \$7,000 damages for breach of contract.

It is alleged by Stilson that under the name of the Speedwell Bicycle Company the defendants contracted to sell him between two thousand and three thousand bicycles, he to go through the country acting as a salesman and get orders. He got several hundred orders, he alleges, and the defendants failed to fill them.

Bussendorfer puts in a denial and a counter claim for \$1,000 for goods, samples, trunks and other things supplied Stilson, and for money he is alleged to have collected and not turned in.

Discharge will be Contested.

The first meeting of the creditors of the firm of Remillard & Valois, of Waterbury, Conn., was held at the office of Referee Newton, at New Haven, last week. The firm filed a petition in bankruptcy several weeks ago. Attorney E. J. Maher, representing the Oxford Manufacturing Company, of Oxford, Pa., questioned the members of the firm closely concerning the affairs of the company. He represents a claim of \$72. Thomas F. Lawler, a Waterbury lawyer, was appointed trustee. The discharge of the firm will be contested.

SLUSSER RETURNS

And Talks Interestingly of the Motorcycle Situation in Paris.

R. W. Slusser, once a well known figure in the cycle trade, who has spent the last two years abroad, mainly in Paris, returned to New-York on Sunday last.

He confirms all that has been said of the use of motorcycles in the French capital.

"You see them everywhere," said Slusser. "It is virtually only the poor workingman who now rides the leg propelleu bicycle. I think I am safe in saying there's not a bicycle store in Paris that does not carry motorcycles in stock, and motor vehicles, too, for that matter. There are quite a few motor bicycles in use, but tricycles far outnumber them. It seems to be the proper caper for even the man who owns a big family carriage to keep a motor tricycle for his own use; he uses it for business, and keeps it handy so that he can jump aboard and make off before a carriage or voiturette could be made half ready. The small store-keepers, too, use tricycles considerably. They use them for parcel carriers during the day, and in the evening and on Sunday they remove the box and use the machine as a pleasure vehicle."

"How do they compare in numbers with the motor vehicles in use?"

"Taking the Bois as a typical thoroughfare, I should say that on week days you will see twice as many motorcycles as all other types of motor vehicles. On Sundays, however, the latter are out in force and the proportion is much less.

"The prices? The De Dion-Bouton people do most of the business and make their own figure, but it is possible to get as good a tricycle as the average man can ask for for \$100 from the smaller manufacturers.

"But don't misunderstand me," said Slusser warningly. "The leg driven bicycle is still in the majority. Every workingman in Paris uses it in going to and from his work. But any one who can afford a motorcycle has one."

Bicycle Screw Standard Better.

The report of the Screw Gauge Committee of the British Association for 1900 proposes to modify the form of thread of sizes 0 to 11 by a flat-topped thread with considerable clearance. These sizes are 6 mm. to 1.5 mm., .236 in. to .059 in. It is objected that for bicycle work these screws would not hold so well as the ordinary screws, and also that the smaller sizes, at any rate, will be impossible to make. The object of the institution of the committee was to consider complaints that the screws of the British Association thread were not satisfactorily interchangeable.

Interchangeable Parts.

One feature to be retained in the new Victor which will be appreciated by both riders and sellers is the interchangeability of the front and rear wheels. All parts—axles, cups, cones, hubs and spokes and nipples—are exactly alike, and the great convenience of this method of construction will be readily apparent.

... THE ...

KELLY,

The King of Handle Bars.



Many others have tried to capture the crown,
but the Kelly still reigns and rules the market.

Have you seen the 1901 bar and quotations?
If not, why not?

KELLY
HANDLE BAR
MFG. CO.,
CLEVELAND,
OHIO.

Sh!

We

Are

Shadowed.

When one man is followed by another man it is almost certain that one of them has something the other fellow wants. In this case envy is the mark of approval. Let it be understood, then, that competition approves of the high gear and the long crank proposition recently introduced in this country by the

Tailored



Orient

FOR 1901.

Orient Dealers! Place your orders NOW — unless you intend worrying through the winter in stagnancy.

Dealers who do not carry the Orient line should blot out the past and change to a concern which can give them winning bicycles, tailored bicycles, autogós and automobiles. It can be done by mail.

Waltham Mfg. Co.,
Waltham, Mass.

THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
"The Wheel" and the "American Cyclist."

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Address us at P. O. Box 2349.

NEW YORK, DECEMBER 6, 1900.

Signs of the Times.

As the 1901 models appear it becomes plainer and plainer that bicycles have more "newness" and more "features" to talk about than is generally supposed, and that the makers are doing more talking about the newness and the features and less about the price than for several years past.

It is a hopeful augury, for the dealers in turn will talk in a similar strain, and in time we may have a trade that is not a slave to price—that chopping block upon which the industry has suffered so severely.

The increased interest in and additions to the ranks of cushion frame and chainless advocates also point that way, while the entry into the trade with the Victor bicycle at this particular time of such a shrewd, substantial and successful house as the J. Stevens Arms & Tool Co. adds to the light on the horizon, and makes it appear that the bicycle business has not gone to seed and that there are better, brighter days ahead;

with the gradual development and looming up of the motor bicycle, the prospect of the "good times coming" is rosy enough to rouse all save the slumbering soul.

Tires' Worst Enemy.

Time is unquestionably the worst enemy a tire has. Tire manufacturers recognized this when they began to date their guarantee from the time the tire left the factory; not when, as was formerly the case, it went into the hands of the rider.

Nowadays bicycle manufacturers endeavor to limit their purchases of tires so as to have on hand only enough to fit to machines as they leave the factory. When machines are carried over from one season to another the aim is to store them without tires. Of course, if the latter were fitted the complete machines could be sold the following season, but it was well known that the tires would have undergone a considerable deterioration by that time.

It made little difference how much care was bestowed on the tires. They might be kept in a cool, dark place, the machines hung up so as to take the weight off the tires, and every other precaution used to prevent their coming to harm; such action helped matters only a little.

The best service is gotten out of a tire when it is new. After it is a year old a portion of the life of the rubber has left it, and matters grow steadily worse from then on.

Sure to Win.

It is rather late in the day to be questioning the right of the motor-driven vehicle to traverse the public highways.

Whether it be classed as a cycle or as a carriage it possesses this right. Common usage and court decisions unite in affirming its equality with horse-drawn vehicles. Before the twentieth century is far advanced the chances are that it is the latter which will be placed on the defensive.

Yet there crops out every now and then a disposition to question this right. Especially is this the case when an accident occurs—alleged to be due to the presence of the obnoxious and dangerous motor vehicle. Big resolves follow, and the user is to be heavily mulcted and his vehicle ruled off the road.

Of course, it is seldom that anything comes of these resolves. Vaporings accomplish nothing, and on the rare occasions when recourse is had to the courts the result is even more disastrous.

Sober second thought nearly always comes

in before these threats take any definite form, however. Suits—and particularly when their outcome is so uncertain—are not to be undertaken lightly.

The Worcester cases, referred to in another column, illustrate this view of the matter. It is hardly doubtful which the courts would regard as the nuisance—the motorcycle, run quietly and under perfect control, or the fractious horse, taking fright at anything and defying all efforts to restrain it.

In time the matter will right itself. Drivers will see to it that their horses become accustomed to the motor vehicles or else are kept off the roads.

In the mean time users of motorcycles and other motor vehicles should exercise both firmness and patience.

Everything is working in their favor, and they can afford to meet their rivals more than half-way now, confident that the day will come, just as it did with the bicycle, when their rights will not be even questioned.

Getting Out of the Rut.

There is a tendency to regard the bicycle of to-day as beyond the reach of change or improvement.

It is so much superior to the earlier models, so free from breakages and annoying mishaps of all kinds, so well adapted to the purposes for which it is used, that this view of the matter is not surprising.

As far as its essential features are concerned this contention is irrefutable. No designer would dare to change the diamond frame, for example; and if one did this trade and public would be almost unanimous in condemning the departure.

The same remark is true of many other constructional features. They have won their place, and there is no present likelihood of their being altered.

But this is no reason why the march of improvement should stop and designers throw up their hands and say that the end has been reached. There is work to be done and no one would be more benefitted because of it than the trade itself.

The public want changes; they do not demand them as loudly as they once did, but they are not slow to show approval when the changes made are to their fancy.

A knowledge of this fact is being brought home to the entire trade. The success of the progressive members has been so evident that it cannot be overlooked, and their example is being more generally followed.

Bibles, Bullets and Bicycles.

It is doubtful if American statistics ever furnished a more curious contrast than does the table of bicycle exports for the month of October, as detailed in another column.

By comparison with the corresponding month of the previous year, only three countries on the globe, Great Britain excepted, show increased demands, and those, remarkable to relate, are the three in which warfare of more or less intensity is raging—Africa, China and the Philippines.

With bicycles generally relegated to the column of luxuries with which it is easy to dispense, this curious state of affairs is difficult to account for, particularly in countries in which roads are conspicuously lacking, and which are peopled largely by poor and more or less benighted natives.

The same condition marked the close of the war in Cuba. The death-dealing song of the bullet had scarcely ceased before the demand for American bicycles arose. The little island's limited capacity was soon satisfied, and bicycles no longer cut much of a figure in its imports; but while it lasted the demand was as heavy as it was sudden and unexpected. The same state of affairs now exists as regards the Philippines; the demand was even more unexpected than in the case of Cuba, and yet it increases with the months and while the crack of the Krag is yet heard in the land.

In the case of war-ridden China, October's increase of more than 150 per cent is even more astounding. It may or may not be due to its military occupation; it probably is as in the case of Cuba and the Philippines—it was the soldier that set the fashion and the native that followed it.

If the same proves true in China the demand that should arise for bicycles should put the record of Cuba and the Philippines to shame.

With its teeming millions, we have often viewed the Yellow Empire as a marvellous possible market for bicycles, though we cannot say that we expected that the bullet would blaze the way. The wish is father to the thought that the October exports may mark the insertion of the opening wedge.

The curious conditions referred to, however, seem to make plain that the bicycle really has become an agency and advance guard of civilization, and that it begins its march even before the sword has been fashioned into the ploughshare.

If this sort of thing continues the old proverb will require revamping. It will be no

longer "First the missionary, next the soldier, then the merchant," but can be more alliteratively expressed thus—"First the Bible, next the bullet, then the bicycle."

In Quest of Knowledge.

One feature of the recent automobile shows which caused considerable comment was the presence of a very large number of mechanics among the exhibitors.

They were there in pursuit of information. From stand to stand they went, scrutinizing, questioning, testing. Possessed of considerable knowledge, they carried with them an unquenchable thirst for more, and until it was satisfied there was no rest for them.

Motors came in for the greatest share of their attention. Most of them were either at work on motors of their own or were putting together the rough parts procured from regular manufacturers. When snags were encountered or improvements thought of the natural step was to investigate the methods in vogue elsewhere and then to institute a comparison.

Motocycles also were subjected to the closest inspection. The development of the different models, as made plain by the exhibits, was followed with the closest attention and approval given or criticism made without hesitation.

Of course, nearly all of these mechanics were connected—directly or indirectly—with the trade. Their interest was due primarily to that fact; but for it they would have been absolutely indifferent to the holding of both shows.

This alertness of repairers and other practical men is the most gratifying part of the present situation.

Supported as it is by a similar wideawakeness on the part of the remainder of the trade, it is sufficient evidence that the opportunity presented by motocycles is appreciated at its proper value.

Guiding Buyers.

While it is undoubtedly a fact that the opinion of the salesman is no longer eagerly sought by the purchasers of bicycles, it is equally true that it still has weight if presented in the proper way.

The best proof of this is to be found in the way a business drifts into ruts. A dealer starts to push a certain class of machine—not intending to altogether exclude others,

however—and some day awakens to the fact that he is selling the former and hardly anything else.

For example, he may reason that the public wants cheap machines, and that it is his place to give them to it without arguing the matter or endeavoring to persuade it to take a better class of goods. After a time his business in the latter dwindles to almost nothing; his customers are practically all of a mind; they take the cheap machines without argument, and in time almost forget that there is anything else to be had.

Sometimes it works just the other way. The dealer makes a push on machines possessing some features out of the common. They cost more, of course, and at first this is a serious matter, jeopardizing and sometimes losing sales. But the difficulty decreases. Buyers gradually change their minds, or new ones with different ideas take their place, without causing any sorrow to the dealer.

When this attempt to divert trade to a certain quarter is decided on as a matter of policy it is still more effective. Conviction counts for much, and the salesman who approaches a prospective purchaser with confidence, adducing sound arguments for the course he suggests or urges, seldom fails to make an impression.

It is the success of these attempts to guide buyers in their selections—frequently without any well defined intention back of them—which proves that the trade still has a say in such matters.

What has been said of dealers is equally applicable to makers. The maker who confines himself to one class of machines can almost always find agents to market his product, or if he prefers he can teach the old ones the new tricks. This is frequently the better course, being the most easily accomplished.

A survey of the field will show many examples where all this has been accomplished. One concern will market chainless machines, another cushion frames, a third a regulation chain machine at a low figure.

But whatever is done the maker or dealer must put heart into his work. Failing this he will rarely convince his customers of his sincerity.

We all know what it is to "walk a horse" to give it exercise, but "walking a wheel" to keep its tires in good condition is a wrinkle which, we fear, will not be generally adopted, despite the competent source of suggestion, *The Irish Cyclist*.

OPINIONS FROM PARIS

Why and how the Motorcycle flukes Opportunities for Americans.

Paris, Nov. 20.—Reference has frequently been made here to the great possibilities that are opened for development in the motorcycle industry in this country. This is a fact that cannot be too strongly insisted upon, and I propose to show now how American cycle makers ought to be able to secure a share of this trade.

MOTORCYCLES ARE EXCLUSIVE.

The motorcycle is more fashionable than the bicycle has ever been, because it is more exclusive, and it is equally as popular, so that it would seem as if there were a balance in favor of the motor machine. When the bicycle came to be taken up by everybody it ceased to be fashionable, but I do not think that this will be the case with the motorcycle. The bicycle was partly wiped out of fashion by the motor car. The motor machine is not likely to suffer the same fate, because it represents what may be called the high water mark of cycling, and those who want to take to something more exclusive have nothing before them but the motor car and voiturette. The self-propelled carriage is generally too costly, not only on account of the high figure that has to be paid for it, but also because of the maintenance and working cost, and on the whole the voiturette is less satisfactory than the motorcycle, which is far more economical and reliable.

The exceptional advantages of the motorcycle have made it much sought after for all purposes to which the safety bicycle is put, alike for sport and pastime and for commercial uses. The motor machine is a convenient instrument which can go anywhere with the least trouble. Moreover, there is an additional charm about motocyling which is wanting in the bicycle. The sense of power and speed which can be regulated at will becomes a fascination for every one who learns to ride a motor machine, and though the bicyclist may return to his wheel he will still be a prey to the allurements of the mechanical instrument. Once a man has mastered the motor machine he cannot get away from its charms, because if he be at all of a mechanical turn of mind there is a keen pleasure in unravelling the little mysteries, and one's interest is being continually stimulated by new developments.

BOOM IN MOTORCYCLES.

The motorcycle has entered upon its career under exceptionally favorable circumstances, and if it does not become a big thing in the future it will be the fault, not of the public, but of the maker. The new machine is favored by a fine system of roads such as is

not to be surpassed in any other country. These roads, straight and level, are specially suitable for mechanical locomotion, and those who like to travel fast can revel in speed to their hearts' content. The public, too, are favorably disposed toward the motorcycle, because the French show a natural curiosity in everything new, and this curiosity is perhaps mixed with a certain mechanical instinct that is a very strong feature of the Gallic character. This curiosity grows with what it feeds upon, so that, far from being a passing whim, the motorcycle is bound to take a permanent hold on the public.

The demand will grow with the supply if only makers will turn out what is needed—that is to say, something that is reliable and fairly cheap; but here we find French firms following a groove which, I fear, will not lead to the desired result. There is one company turning out motor bicycles on a pretty big scale. De Dion, Bouton et Cie have laid down an expensive plant, with which they are turning out bicycles and quads by the



BECONNAIS IN THE GAILLON HILL CLIMB.

hundreds, and they have reduced their cost of manufacture to such an extent that they are able to monopolize most of the trade. They would doubtless be doing still more if they were not obliged to divide their attention between the motorcycle and heavy vehicles. The other cycle makers and motor firms cannot do business on the same lines, because they are unable to get the necessary capital. The machines are produced in small numbers, and the cost is therefore relatively high, with the result that while they are obliged to sell the machines at about the same price as the De Dion their profits are not large, and they do not find any inducement to extend their business facilities, unless, of course, they can find enough money to establish big factories and build motor machines at such a figure as to enable them to cut out their competitors.

This want of capital is a great failing in the motorcycle trade. People here will not invest their money in enterprises of this kind, and firms which might do well with public support are obliged to struggle on as best they can. As I have said in a previous letter, the only way to create a general demand for motorcycles is for firms to establish huge factories where they will build the motors and machines with as little expense as possible and sell them at a price

which will bring them within reach of everybody.

WHAT AMERICAN CYCLE MAKERS CAN DO.

The French makers are not wanting in enterprise, but they are wanting in capital, and I do not think that they will be ever in a position to cater for the whole of the needs of the motorcycle user. The facilities for turning out manufactures cheaply are much less in this country than in the United States, for not only is the cost of labor high, but makers have not so much choice of labor saving machinery, which they have to buy almost entirely in America. It is for this reason that the American cycle maker ought to be able to build up a connection in this market which would prove an extremely profitable one. With his ingenuity and skill he should turn out a cheap and serviceable motorcycle that, if approved of on this side, would meet with a very heavy demand.

The French are very much taken up with American patterns, as is proved by the popularity of American bicycles and light machinery of all kinds; and they are just the qualities that have popularized this mechanism which should go to the making of a satisfactory motorcycle. Success would further be assured if makers standardized their machines and motors in the same way as they have done the bicycles, and if they could supply French users with reliable machines in which the parts could be easily replaced there is not the slightest doubt that a big trade could be done in this country. In speaking of France the same thing may be said of Germany, Belgium and England, which are all taking French machines, and the business done would be much more considerable if buyers were saved the trouble and annoyance of getting repairs carried out when, if built to a general standard, these repairs could be done cheaply and without loss of time.

MILE A MINUTE MOTORCYCLE NEXT.

The accompanying photograph shows Beconnais on his 6 h. p. Soncin motor tricycle, which did such a remarkable performance at the Gaillon hill climbing tests—one kilometre, up hill, in 55.2-5s. This is at present the fastest motorcycle in the world. Beconnais has always been a specialist of high powered motorcycles, and he has a very long list of victories and records to his credit, both on the road and track. Like most professionals, he was originally a mechanic in a motorcycle works, and, being gifted with exceptional nerve and ability to get the most out of his motor, he was selected to ride the firm's motorcycles in the different tests, and since then he has given himself up almost entirely to this occupation. He says that the makers of the Soncin motors are building him a still more powerful machine, with which he expects to be able to do sixty miles an hour. This may seem to be a little bit tall; but, after seeing Beconnais sprint on his tricycle as straight as a die, at a speed of about forty-five miles an hour, it does not appear at all impossible that he should succeed in doing a mile a minute.



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The Fisk Guarantee

We guarantee all Fisk Tires for one year. If during that time they develop any weakness or defect not the result of abuse or accident, we will gladly replace them.

We could not afford to do this at the present price tires command, did we not know that Fisk Tires will stand the hardest test to the rider's satisfaction.

Our guarantee is an earnest of our faith in our product and the strongest protection a rider, dealer or maker could wish for.

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Write Early for
Samples
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ITS RIGHTS DEFINED

Two Worcester Tradesmen Responsible for the Motorcycle Ruling.

Only a few weeks ago Worcester (Mass.) motocyclists and automobilists were asking themselves whether they had any rights on the public highways which horsemen were obliged to respect.

Threats both loud and deep were made against them, and it was freely asserted that the aid of the law would be invoked not only to restrain them from the use of the roads, but as well to make good damages alleged to have been caused by their unlawful peregrinations in and around Worcester. That they had any rights at all in the matter was an assertion disdainfully scouted.

But a calm has succeeded the storm. The threats have died away, and if present indications go for anything the whole matter is to be dropped.

The cause of all the trouble was the meeting of two motocyclists with an unruly and uncontrollable horse. At sight of the former and their machines the horse bolted, and in its wild career communicated its fright to another horse, which followed its example. The result was a smashup in each case, damaged rigs and bruised and frightened drivers, while the motocyclists, after unavailing efforts to minimize the accident, went their ways considerably perturbed in spirit.

Nothing would do the victims of the run-aways but to begin suit for heavy damages against the motocyclists. The latter—L. C. Havener and A. L. Wilson, both well known in the trade—waited, feeling that they were not at fault and that there was no cause for action against them, but annoyed at the turn affairs had taken and ready to welcome a diversion.

This came in due course. The aggrieved parties consulted an attorney, and almost at the same time the Worcester authorities asked the City Solicitor for a legal opinion bearing on the status of motor vehicles.

As it happened, the City Solicitor—Rugg by name—and the attorney called on to prosecute the case on behalf of the injured men were one and the same. He made a study of the case, looked up the authorities and submitted the report summarized in the *Bicycling World* last week.

As will be recalled, it asserted in unequivocal language that motor vehicles of all kinds were entitled to the rights of the road equally with horse-drawn vehicles. No other interpretation of the law was possible, in Attorney Rugg's opinion, and nothing could be more absurd than to argue that motor vehicles could be debarred the privileges of the streets and roads.

Of course, this closed the matter. Even threats of legal proceedings are no longer indulged in, and it is probable that the ag-

grieved ones will put up with their injuries—mental and physical—as best they may.

In the unlikely event that they will press the matter it is highly probable that the services of a new attorney will be called in.

A. B. C. Promotions and Appointments.

H. C. Burleigh has been appointed to succeed J. A. Carter as head of that section of the American Bicycle Co.'s sales department dealing with manufacturers and jobbers; Mr. Burleigh was formerly Mr. Carter's assistant. The vacancy made by his elevation has been filled by the appointment of Harris Parker, former manager of the Crawford branch in Boston.

A. E. Schaaf, the veteran G. & J. man, has been made chief of the automobile department, while O. G. Formhals, another former G. & J. man, is now in charge of the A. B. C. advertising.

Parent Company Sues.

Damages in the sum of \$250,000 are asked for by the Dunlop Pneumatic Tire Co., Ltd., of London, England, in a suit brought last week at Toronto.

The action is brought against George A. Cox, Edward Gurney and E. B. Ryckman, all of Toronto; Warren Y. Soper, Ottawa; the Dunlop Tire Co., Ltd., of Canada, and the American Dunlop Tire Co. The claim is based on the allegation that the defendants violated a contract by which it was agreed that they should send no tires out of America, in that a number of shipments to Australia have been made.

Shelby's Hartford Mill to Re-starts.

Although it was generally believed that the shut down of the Pope tube mill, at Hartford, Conn., was permanent, Manager Thornbury, of the Shelby Steel Tube Co.'s New York office, confirms the report that the mill will be again operated. It will be used as the Eastern supply depot.

Making Record Pedals Again.

H. W. Wyman, who purchased the assets of the Union Cycle Mfg. Co., will use the plant in the manufacture of Record pedals, to which it was previously partly devoted. Mr. Wyman has long been the chief holder of the Record patents.

Linscott Settles with Creditors.

The Boston Cycle Co. (J. M. Linscott, manager), has settled with its creditors on a 40 per cent basis and will resume business on its own account. This settlement defeats the efforts to force the concern into bankruptcy.

Reductions in Graphite Prices.

The price of graphite lubricants has dropped a peg. The Joseph Dixon Crucible Co., of Jersey City, which almost dominates the market, has issued new quotations to meet the changed conditions.

RED CROSS RE-ECHO

Alleged Partner and a Bank Still Fighting Over an Old Note.

Although the firm of Arlington U. Betts & Co., of Toledo, O., has been out of business for a number of years, and its successor, the Red Cross Rubber & Cement Co., has also been absorbed by the National Cement & Rubber Co., the courts have only just passed on a case connected with the purchase price of the original Betts business.

The case was that of the Ketcham National Bank, of Toledo, against Arthur T. Hagen, of Rochester, N. Y., impleaded with another. The action was brought by the bank to enforce payment by Mr. Hagen of a \$5,000 note. In the lower courts Mr. Hagen was successful, but the Court of Appeals has now decided against him. The case is sent back for a new trial, the judgment dismissing the bank's complaint being also reversed.

Hagen and Frederick W. France were engaged as copartners in the bicycle business under the firm name of F. W. France & Co. They continued there until 1897.

In June, 1897, the firm bought of Arlington U. Betts, of Toledo, a rubber and cement business, consisting of appliances for making rubber cements, enamelling ovens, brazers, vulcanizers and the like, and gave in part payment a note for \$5,000. The note was indorsed by Betts, the payee, and discounted by his banker, the plaintiff, in the usual course of business, the proceeds passing to the credit of his account on August 3, 1897, and was all checked out.

The note was not paid when it came due, and an action was brought by the bank to recover the face value of the note. Upon the trial Mr. Hagen disclaimed any connection with the firm of F. W. France & Co., as well as denying knowledge of this transaction, or with its bicycle business, or with what was known as the Red Cross Rubber and Cement Company, by which name the rubber and cement business was afterward conducted.

The witnesses for the defence testified that Hagen did not know of the purchase, the inference being that the note could not be enforced as against Hagen.

The trial judge gave the jury three questions to answer, and they decided that Mr. Hagen was a copartner in F. W. France & Co. when the note was given; that it was given as part consideration for the purchase by that firm of the rubber and cement business, but that such purchase was without Hagen's knowledge or consent. The Court thereupon dismissed the bank's complaint.

Mr. Hunn, appearing for the Ketcham National Bank, appealed to the Appellate Division, and the judgment of the lower court was affirmed. He again appealed, with the above result.

MORE VIBRATION KILLERS

Great Britain Raises a New Crop—The Riley as an Illustrious Example

Anti-vibratory devices continue to attract much attention across the water, and machines so fitted promise to be one of the features of the shows now being held.

One of the latest of these, put out by the makers of the Riley bicycle, is thus described by the Cyclist:

The seat pillar is vertical, and is attached to a couple of elliptical springs in the top of the back triangle of the frame. It gives an exceedingly comfortable seat, and while it absorbs vibration to a remarkable extent is quite free from any suspicion of knock, thus differing from the majority of its predecessors. This, of course, is due to the perfect action of the laminated elliptical springs, which, while they give freely to the shocks of the road, come up as the rider's weight is relieved without any return shock.

It is one of those devices which is really a part of the bicycle, and does not destroy the feeling of oneness between the rider and his machine. It must not be imagined that the play of the springs is excessive, as the movement is really very slight, but it is ample to rob granite of its terrors, and we have enjoyed free-wheeling at high speeds over roads which in the ordinary way we should have traversed at a pace little above that of walking. We have never given any attention to the springs, which require no adjustment at any time; a drop of oil at long intervals on the pins being all that is necessary.

A spring saddle is quite a superfluity with this arrangement, and any loss of power which may result from the use of springs is certainly less than would be the case if an easily sprung saddle were fitted, while the amount of extra comfort is greatly in advance of anything we have ever obtained from a spring saddle.

The only complaint that has been made comes from those who require the same insulation from vibration in the front that they obtain at the back. This desire has now been granted by the makers, who have brought out a new vibration absorbing front fork, which will completely insulate the rider from all vibration from the fore part of the machine. The arrangement is so simple that it requires little description at our hands, and we hope shortly to test it on the road.

We need only add that it is as absolutely rigid sideways as the back anti-vibrator, and this quality of lateral rigidity is essential to the success of any bicycle if it is to be fit to ride. Vertical "give" in a spring device is, of course, necessary if it is to be of service as a vibration absorber, but any lateral instability is a most serious vice, as it means waste of the rider's driving power, bad steering and on greasy

surfaces dangerous instability. The main spring to take the load is centrally placed beneath the bottom head lug, the two lighter springs at the sides and just behind it being for the sole purpose of taking up the return motion after passing over an obstacle. Without them the arrangement would "back bump" whenever an unusually big shock had been met.

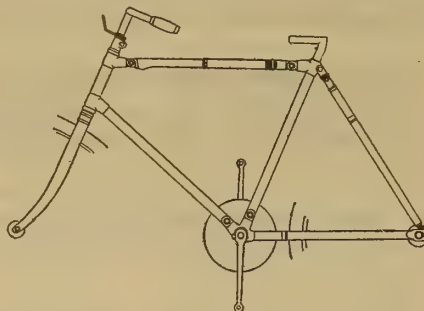


As it is, the combined action of the spring controls the motion of the front axle at the fore end of the rocking levers, which work on pins in the fork eyes, so that the wheel rises and falls vertically as the inequalities of the road are encountered without the main frame or the rider being disturbed from a practically horizontal line of motion.

Should Interest American Exporters.

Spring frames appear to be having a distinct boom in Great Britain. At least half a dozen new types have made their appearance within recent months.

Perhaps the one that has most interest for the American trade is that just launched



by the Birmingham Small Arms Company and shown by the accompanying illustration. It is of interest because it is the Birmingham Small Arms Company that is one of America's chief competitors in the export field, and because the company deals not in completed bicycles, but in the parts that go to make them, hence its frame is more than apt to cut a feature in the export trade, an item which American parts makers will do well to keep in mind.

In the frame are three concealed coiled springs, one in the centre of the top tube and one in each of the back stays just under the saddle. The tension may be adjusted to suit the weight of the rider, a very important feature in some respects. Four knuckle joints give the necessary vertical play to the frame. It is worth noting that by this method not an atom of play is allowed laterally, and that the pedals are always at the same distance from the saddle.

"GOOD OLD ELLIPTICAL!"

Scotchmen Want Only \$400,000 With Which to Revive the Sprocket.

For some seven years the elliptical sprocket wheel as a constructional feature of the modern bicycle has been buried in oblivion. It has been generally supposed that it would never come to the front again, so completely were the claims advanced for it disproved.

Such belief, however, appears to be delusive. An effort is being made in Glasgow, Scotland, to float a company, with \$400,000 capital, to promote the sale of patents, the only patent in evidence being an alleged one on elliptical sprocket wheels. The prospectus says that the invention has been patented in fifteen countries, and these, with the dates of the patents, are given.

Glowing testimonials are given from "a superintending engineer of high standing" and a firm of general merchants of Christchurch, New Zealand. Strangely enough, the latter is nearly all about performances on a machine fitted with the wheel in the neighborhood of London, England, in June and July, 1897. This idea is asserted to be new and "likely to revolutionize cycling."

It now appears that the oval sprocket is much older than supposed. An investigator has unearthed "Patent No. 5,234, G. Singer, Coventry, and W. R. Davies, Abergavenny. Bicycles and tricycles. November 2, 1882. The chain wheels are made of an oval shape, the larger diameter of which are in line with the throws on the pedal-shaft."

As to South African Trade.

Writing from Cape Town a Liverpool man says of the South African trade: "The prices of cycles are very bad here, and no improvement can be expected for a long time to come. The 'little men' are quite as numerous as in England, and they are the only ones who are now holding their own. Cycles are being sold by auction daily in the public square. They have to go, so it follows they realize very poor prices.

"South Africa is a country which requires a lot of working, and it is a most expensive one to work. No fortunes are to be made at present. The place is simply overrun with merchants of all sorts, and it will be useless for any one to come out here to do trade for a long time to come. I have scoured the place already, and am returning to England immediately, as I cannot get up country for some months yet. I have got my men fixed up, and they can now manage without me. The town of Cape Town is 'oph' for cycling, but the outskirts are grand, there being many beautiful cycle rides in every direction. The roads are all sand, but one can ride on the footpaths, which is a great concession.

"Cycling is all the rage here—every little Boer and Zulu, black man and white man, all cycle.

AN OPEN LETTER.

When the Pan type of saddle, followed by the padded and laced and innumerable imitations of these three, began their run, they were sought by two classes of riders: the first, by those who wished to have a machine bearing every appearance of a racer, while the others were bought (but almost as rapidly discarded) by those who would not give a saddle of the Persons plan of construction a sufficient trial to find that it was absolutely the best in the world for general riding. It was a case of "the freakier the freak the greater the fad."

its shape without being supported by pads and sheet iron. Already we have been done the honor of having our last season's model dissembled by one of the most prominent makers, who has used our parts throughout for patterns for his imitation for next season. His effort, like the attempts of others, will be wasted, and will only bring discomfort to those who use an imitation of the genuine **PERSONS**.

It is one thing to take a scoop full of sand from the shore, and another thing to make it into glass. In saddles we have

which we form from twisted piano wire, the most difficult spring to produce ever seen in a saddle. The very highest grade machines in the market this year will be equipped with this saddle; to name them is to name them all. In some establishments they are taking the place of more costly imported goods; in others they are being bought as the result of the lesson learned from cheap saddles in the past.

There you have the situation of to-day. The demand has come back to the suspension type saddle, owing to the



Many of my old friends advised and urged me to follow the general demand and produce saddles of the types named above, but I refused to do so, claiming that my principles were the refinement of years of experience of the most intelligent riders; that attention in detail to workmanship and design such as no other seat in the market could claim, was responsible for its proven superiority, and that this would be acknowledged by the great influx of new riders as soon as they became thoroughly seasoned.

I held to my ideas; my ideas became beliefs, my beliefs, **Principles**. When a **PERSONS** Saddle is mentioned to-day it is known to mean a saddle with leather of a sufficient quality and quantity to sustain the rider, and to forever retain

the methods of manufacture; without these it is impossible to make a suspension type model that will stand up. These processes of preparation, beginning with the tanning of the leather and the designing of the springs, and ending only with the last seasoning after the saddles are ready to be put in their boxes, are known to us and to us alone. It is a fact of which riders of **PERSONS** saddles are proud, that the longer the saddle is used the more perfect the shape becomes in relation to its rider, and it is an old practice with such wheelmen when buying new machines to shift to them their old **PERSONS** saddle. A **PERSONS** never wears out.

For 1901 we offer improvements, one of the greatest being our "cable springs,"

fact that there is still one perfect suspension saddle in the market. I have made these saddles for many years, and have written the foregoing in order that my position may be clearly understood by those with whom I have not come in personal contact. Generous treatment is being accorded me by the companies familiar with saddle history, but occasionally I meet others; I hope that they will consider the above facts carefully.

There will be a satisfactory business in high-grade bicycles next year; the higher the quality the better the business. **PERSONS** saddles add quality to any bicycle.

Respectfully,

CHAS. A. PERSONS.

THERE ARE Good Brakes and "Bad Breaks"

but you'll make no "break" by buying the

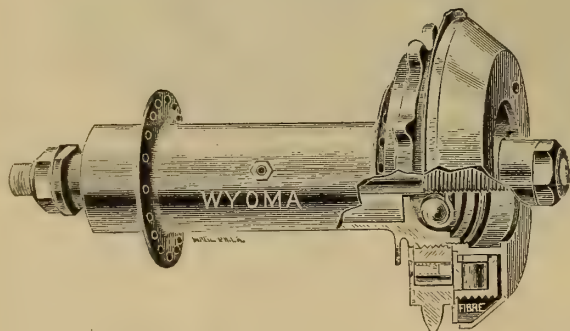
WYOMA.

IT "*BRAKES*," BUT NEVER MAKES A "*BAD BREAK*."

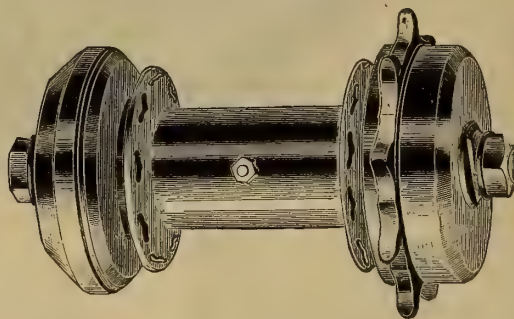
It is not new, but

HAS STOOD THE TEST OF TWO SEASONS.

WYOMA—DETACHABLE.
Patent Allowed.



WYOMA—UNIVERSAL.
Patent Applied For.



NO
BALLS
USED.

CONE-SHAPED FIBRE BRAKING SURFACE.

The **Detachable** model is the only coaster brake made to fit various hubs which does not contain a single ball to cut grooves, and which has a cone-shaped fibre braking surface. Brakes with balls are unreliable, and flat disks are not powerful.

The **Universal** model is new this year, but acts on the same general principle as the detachable, the difference being that in this form the coasting device is on one end of hub and the braking surface on the other. It is sold only **complete with hub**, and is the more convenient form for jobbers and dealers.

A TRIAL ORDER WILL CONVINCe YOU OF THEIR MERITS.

WYOMA COASTER-BRAKE CO.,

Cable Address, WYOMA.

READING, PA., U. S. A.

DAYTON REFINEMENTS

What has been Done to Make a Good Wheel Better—The Prices.

For 1901, the Davis Sewing Machine Co.'s line of Dayton bicycles will comprise four singles and four tandems, as follows: Model 52, a special light roadster at \$50; model 53, a 19½ pound racer at \$50, and models 50 and 51, men's and women's roadsters, respectively, at \$40.

The Dayton people have also plumped for the cushion frame and will supply it on their models 50, 51 or 52, or chainless models at an additional cost of \$10. Either Morrow, New Departure or Cinch coaster-brakes add \$5 to the list prices.

In the general construction of the new Dayton's few changes appear, these consisting only of improvements in detail where possible. The frame, on which the Dayton people have always prided themselves, is given additional rigidity and symmetry by slightly shortening the rear forks, thus bringing the rear wheel nearer the crank hanger. The frames of all models are made of seamless tubing, 1½ inch being used in the main frame of the model 52, 1 inch in the model 53, and 1¼ inch in the model 50. No change has been made in the frame of the model 51, the ladies' wheel. The crank hanger in all models is dropped 3 inches. Models 52 and 53 have outside joints, and models 50 and 51 flush joints. Flush top head fittings are used in the model 50 which considerably improves the appearance of that part of the frame of this model. The double plate crown fork so long distinctive of Dayton wheels is retained on all models, and the enamel finish on both frame and fork is of the same high quality and luster which has always marked the Dayton wheel. The crank hanger construction is the same in its mechanical principles as that used in 1900, but is made heavier, thus providing extreme strength at this point. A new internal seat post fastening is also employed.

Siam's Trade Settles Down.

According to the British Consul at Bangkok, the acute stage of the bicycle craze in Siam seems to have passed away, but the bicycle has, nevertheless, attained a recognized position in the domestic economy of the country, and there will probably be a constant though more moderate demand for it. The craze was at its height last year, when the imports amounted to £17,546. Imports from Singapore were £7,674, from the United States £4,850 and from England direct £2,816. The American bicycle seemed the most popular. By and by, adds the report, as the construction of roads in the provinces progresses, the use of the bicycle will spread all over the country.

Receiver's Charges Unauthorized.

Exceptions were filed last week by The Soudan Mfg. Co., of Chicago, to the report of the receiver of the Columbia Bicycle and Typewriter Co., of Columbus, O.

The plaintiff excepts on the ground that the court never authorized the receiver to purchase goods for continuing the business, nor to hire a collector, nor to employ a manager, nor to hire horses and buggies to carry on the business.

The plaintiff says the charges in all those cases were exorbitant and unnecessary.

Balls Instead of Rollers.

Morrow coaster-brakes for 1901 show but one change from the 1900 patterns, and that is only an option. This exception is the fitting, when, desired, of a row of balls between the sprocket wheel and the hub, so



NEW YORK BRANCH: 214-216 WEST 47th ST.
BOSTON BRANCH: 80 BATTERY MARCH ST.,
Near Fort Hill Square.

that when coasting a ball bearing will be in operation instead of a roller bearing, as at present. So satisfactory has the latter been found, however, that its construction will be continued during the coming season, and it is expected that it will continue to have a very large sale.

Bicycle Tires Not Involved.

Louis Whiton, of New London, Conn., has brought suit in the United States Circuit Court against the Hartford Rubber Works for alleged infringement of his patent, No. 343,351, of July 13, 1886. While the patent covers bicycle tires as well, the suit has reference only to its application to vehicle tires.

Bicycles will be the mounts of a section of the South African police, which General Baden-Powell is organizing to help subdue the Boers. He has cabled London for 100 machines.

TRIED COUNTERFEITING

Bicycle Business being Dull, this Dealer Made the Wrong Kind of Money.

Because the bicycle business was dull and money was needed to support his wife and children is the reason assigned by John S. Rice, of Chicago, for entering upon the more lucrative occupation of counterfeiting.

Rice, who is described as a "bicycle maker" at 6,110 South Halsted street, was arrested last week on a charge of counterfeiting. He confessed, saying he made bogus money to support his wife and children. His counterfeit is a silver dollar of the date of 1877, and is one of the best imitations yet discovered. Rice owes his arrest to the disfigurement of his nose.

More than a year ago Captain Porter of the secret service found one of the bogus dollars, and learned from a saloonkeeper that it had been passed by a man whose nose was disfigured. The bogus dollars were circulated principally on the Northwest Side. The Government officer gave a description of the counterfeiter to Policemen Culkin and Gleason, and finally they found their man.

In his confession Rice said the bicycle business was dull, and he had difficulty in supporting his family of nine children. He then turned to making counterfeit dollars in lots of 100 at a time. Commissioner Humphrey held him to the Federal Grand Jury in \$2,000 bonds.

Great Western's Arrangements.

The Great Western Mfg. Co., of La Porte, Ind., has rearranged its Eastern distributing depots for the season of 1901 as follows: Boston, 170 Oliver street, Penrose & Clark, managers; New York, 101 Reade street, D. P. Harris, manager; Philadelphia, 933 Arch street, Charles S. Smith, manager.

The Great Western line for the approaching season will comprise the Adlake roadster, \$35; Adlake racer, \$50; America truss frame, \$40; Crown roadster, \$25; 24-inch juveniles, \$25.

Recent Incorporations.

Jersey City, N. J.—Bridgeport Tire and Specialty Company, with \$125,000 capital; to manufacture patented specialties. Incorporators—Bacon Wakeman, B. F. Taylor and H. T. Rogers.

Cleveland, O.—The Ohio Cycle Pump Co., with \$50,000 capital. Incorporators, F. T. Sholes, John N. Coffin, C. R. Smith, George P. Rust and C. K. Fanwer.

A first-class credit man is wanted by one of the best known houses in the cycle trade. Address, JOHN, care Bicycling World.



The Best For His Money

The buyer is willing to pay a fair price for a bicycle which has shown up to him to be better than another at a lower price but he has to be satisfied of that fact. Here is where the dealer who has a bicycle which has the points about it to win the buyer has his opportunity—but he has got to show up the points.

Merit will win against price. It takes a little more time perhaps but the universal gain to the dealer comes later when one satisfied customer brings in another and his future time is spent in making sales instead of repairs. As one of our customers said awhile ago:

"One beauty of the National is that when it's sold it stays sold and I don't have to keep fussing over it to keep the owner satisfied."

There are a good many features on the National that make it distinctive—different from others—better than most.

National Cycle Mfg. Co., = = Bay City, Mich.

CAN YOU IMAGINE A

More Attractive Wheel at a More Attractive Price

THAN A

23 lbs. **VICTOR** \$35

OR A

BETTER SELLER AT ANY PRICE?

YOU KNOW YOU CAN'T.
"YOU ALL KNOW VICTORS."

THEN

WHY NOT APPLY

for the agency before some one else in your town captures the prize?

J. STEVENS ARMS & TOOL CO.,

CHICOPEE FALLS, MASS.

CARE OF TIRES

Methods by Which an Editor Avoids Trouble and Lengthens Their Life.

Dealing with the subject of tire troubles the Editor of The Irish Cyclist not only traces the ills to some often unsuspected causes, but tells how he cares for his tires so well that they last him for three years. His methods are more than the average American will care to follow, but the story loses none of its interest because of the fact. Says the Irish gentleman:

"One man writes us: 'My tire developed a well defined crack close to the rim within a fortnight of its purchase new from the agent, though, according to the manufacturers' mark, it was then eight months old. Moisture and dirt rapidly worked in and burst it.' Now, it is quite plain that it was that eight months' disuse that did the damage. The tire may have been properly stored in a damp, dark room during that period, but even so, the rubber would deteriorate. If, however, it was stored in a dry room, and where light reached it, or in an agent's window, the eight months would be enough to absolutely ruin the rubber. Of course, once the crack referred to developed along the rim, moisture and dirt were bound to get in and rot the fabric, causing the burst referred to.

"In another case the rider complains of a succession of boils appearing round his tire, which eventually led to bursts. Now, such boils can only be formed through dirt entering through the gashes in the rubber. Such gashes are bound to occur on average roads. When the tire is used these gashes open and shut at each revolution, picking up little particles of road grit, which by degrees form a boil. The boil so formed sets up a grinding action on the fabric, and also proves a receptacle for moisture, which inevitably rots the fabric and causes a burst.

"A third species of complaint is that the rubber separates from the fabric. This may be due to three causes. First, through an actual defect in the tire, due to the solution being of poor quality or being carelessly applied. Secondly, to the effect of untended boils; or, thirdly—and here, we think, will be found the principal seat of the damage—to the improper use of powerful rim brakes, back pedalling or otherwise, which lock the back wheel and cause it to skid. This has the treble effect of gashing the tire, of wearing it by attrition and by tearing the rubber apart from the fabric and causing the trouble of which these cyclists complain.

"Personally, except in the case of multi-cycles, we use the thinnest possible tires for all classes of work. Cyclists, however, who will not give regular attention to their tires cannot do so with impunity, as gashes are bound to occur and boils to form. There-

fore it would be better for them to get the heaviest tandem tires, which, owing to the thickness of rubber, are not so likely to become gashed. Even these, however, will suffer in exceptional cases, and unless the gashes or boils are seen to the fabric will rot and burst. It makes no difference how many layers of fabric there may be. Even although it may be one-quarter inch thick the wet penetrating will in process of time cause it to rot and the inevitable burst will occur. Quality of material has nothing to say to it. Bad or overvulcanized rubber may be more susceptible to gashes than material of the proper quality, but once a gash has occurred the onus rests on the rider of preventing a boil and subsequent burst by stanching it. These remarks apply to all classes of tires.

"During the last two years we have personally used Dunlops, Palmers, Fleuss, Warwick and Scott tires in all weathers and over bad roads. Only once have we suffered from a boil, and this was a lent machine, the tire of which had been gashed and not repaired. The reasons for our immunity are as follows: First, we always make sure that we have tires that have come recently out of the factory and have not been stocked in storerooms or agents' windows; second, gashes in the rubber are at once repaired, and if by any chance a boil should form not a moment is lost in carefully removing the grit with a blunt instrument, carefully cleaning the inside, both of fabric and rubber, and then solutioning the surfaces together; third, we keep our bicycles in a comparatively damp coachhouse, and have the windows well muffled to prevent light getting in. No machine is ever allowed to lie for any length of time without use, even although it may only be to the extent of running a few hundred yards. For example, in the case of our triplet, which is only used in dry weather, we have ridden or walked it up and down our avenue two or three times, about once a fortnight. But for this the rubber would become perished and cracked by the time the spring came round. As it is, these tires stand at least three years' work and never give any trouble.

Checkmating Alcohol Drinkers.

With a view of promoting the industrial use of alcohol in France the Government appointed a committee some little time ago to report on what changes should be made in the method then in use for "denaturing" alcohol, or rendering it non-potable. This committee now recommends that the addition of methyl alcohol should be reduced from 10 per cent to 1 per cent, and that the use of malachite green, a non-volatile material now in use as a denaturant, should be abandoned. The mixture they suggest as meeting the requirements of the various industries, while adequately protecting the Treasury, is made up of 97 volumes of alcohol at 95 degrees on Gay-Lussac's hydrometer, one volume of methyl alcohol, one volume of wool washer's grease and one volume of heavy benzene.

MUST USE JUDGEMENT

Rhode Island Supreme Court so Rules Concerning Cyclists Crossing Sidewalks.

The necessity for cyclists to exercise due care when riding, and especially to give pedestrians the benefit of the doubt whenever one exists, was again made plain last week through a decision rendered by the Rhode Island courts.

The case in point grew out of a suit of Margaret Nelson against Edwin C. Breman for injuries sustained in a collision by the defendant on a bicycle. The opinion came down from the Appellate Division of the Supreme Court, as follows:

"We think it is not too much to say that as a general rule, where a person riding a bicycle passing out of a gateway crosses the sidewalk of a public travelled highway it is his duty to avoid a collision with persons passing along the sidewalk, and to stop and dismount for that purpose, if necessary.

"He may proceed if he sees that the passer by stops, but if in so doing he used bad judgment in attempting to pass in front or behind the person he is responsible for any damage that may ensue. In this case the defendant was riding so close to the gatepost on his left as to graze his hand against it and to be unable to see the plaintiff, who was walking along the sidewalk, in time to stop. The jury was therefore justified in finding him guilty of negligence.

"The only exception presented in the defendant's brief relates to the introduction of expert testimony concerning the proper course for a bicycle rider to pursue in a hypothetical case. While it may be doubtful whether such expert testimony is proper upon such a question, the answer of the witnesses was favorable to the defendant, and he was not prejudiced by the ruling of the Court. We do not think the damages assessed by the jury were excessive."

The case was remanded to the Common Pleas Division for judgment upon the verdict.

Acetylene's Great Strides.

It is not alone in this country that the manufacture of acetylene gas has undergone a wonderful development. It is calculated that in Europe over 120,000 horsepower is devoted to its manufacture, and its production forms one of the most important chemical industries.

Germany is one of the countries that has been foremost in the acetylene field. Up to July, 1898, 62,000 jets of acetylene were installed; by the end of 1899 the number had increased to 170,000, and at the present time it amounts to at least 200,000 jets. The acetylene industry has developed an extraordinary fertility of invention. In 1897 617 patents were applied for; in 1898, 937. No other branch of industry is capable of showing such a large and steady increase in the number of patents. Inventions for other illuminants have been decreasing gradually—304 in 1895, 238 in 1897 and 209 in 1898.

The Week's Exports.

Copenhagen was the chief buyer of American cycle stuff this week, its purchases aggregating more than \$6,000. The shipment, in detail, for the week which closed December 4, are as follows:

Antwerp—17 cases bicycle material, \$525.
 Argentine Republic—6 cases bicycle material, \$290.
 British Australia—100 cases bicycle material, \$2,847.
 Brazil—26 cases bicycles, \$600.
 British West Indies—21 cases bicycles and material, \$470.
 Bremen—5 cases bicycle material, \$201.
 British Guiana—6 cases bicycle material and supplies, \$94.
 Central America—1 case bicycles, \$15.
 Copenhagen—203 cases bicycles, -5,000; 38 cases bicycle material, \$1,128.
 Cuba—25 cases bicycle material, \$786.
 Dutch Guiana—19 cases bicycle material, \$427.
 French Possessions in Africa—1 case bicycle material, \$35.
 Harve—1 case bicycles, \$25; 14 cases bicycle material, \$591.
 London—250 cases bicycles, \$2,546; 53 cases bicycle material, \$1,663.
 Liverpool—1 case bicycles, \$15.
 Porto Rico—1 case bicycle material, \$50.
 Southampton—1 case bicycles, \$33; 5 cases bicycle material, \$175.
 Smyrna—3 cases bicycles, \$60.
 Trieste—1 case bicycles, \$30.
 Tasmania—1 case bicycle material, \$26.
 Uruguay—2 cases bicycle material, \$57.

Fire will Cause No Delay.

Chicago, Dec. 3.—The fire last night did us very little damage and will in no way interfere with filling our orders promptly. We always carry several thousand complete hangers in stock in our fire proof vault, to guard against emergencies.

* * * PARK CITY MFG. CO.

Suggested as a Side Line.

To the dealer in search of side lines, particularly in the suburban and country districts, it seems that little if anything would appeal more strongly than the acetylene and vapor gas lamps for street and house light-



ing. These lamps are so much more brilliant and in every way more attractive than the oil lamp in general use that their sale should be comparatively simple. The makers of these lamps evidently appreciate the fact, and are seeking to interest the bicycle dealer; one of them, the Search-Light Mfg. Co., of Chicago, one of whose lamps is here shown, is even making special terms to him; there is no doubt that the field is well worth investigation and inquiry.

Ridiculous Guarantees.

Some of the English manufacturers are evidently hard put to it. One of them advertises a two years' guarantee; another goes him two years better and guarantees his bicycles for four years.

The Week's Patents.

662,602. Velocipede Brake. Wilhelm Schmidt, Heidelberg, and Josef Berberich, Neustadt, Germany. Filed July 24, 1899. Serial No. 725,016. (No model.)
 662,781. Bicycle Crank Hanger. William H. Fauber, Chicago, Ill. Filed Aug. 5, 1899. Serial No. 726,272. (No model.)
 662,594. Wheel. William Esty, Laconia, N. H. Filed Oct. 31, 1899. Serial No. 735,417. (No model.)
 662,443. Vehicle Wheel. James N. Johnson, Hattiesburg, Miss., assignor of one-fourth to John Franklin Bennett, same place. Filed Mar. 17, 1900. Serial No. 9,051. (No model.)
 662,506. Support and Locking Device for Bicycles. Charles Stride, Chichester, England. Filed June 23, 1900. Serial No. 21,390. (No model.)
 662,520. Retainer for Ball Bearings. William H. Binns, Chicago, Ill., assignor to A. Featherstone & Co., same place. Filed Nov. 4, 1897. Serial No. 657,316. (No model.)
 662,553. Bicycle Brake. William G. Tassell, London, Eng. Filed Oct. 30, 1899. Serial No. 735,232. (No model.)

The Retail Record.**CHANGES.**

Manchester, Mass.—Perkins & Corliss, closed.

Pittsburg, Penn.—Charles Beltz succeeds Charles Beltz & Son.

NEW STORES.

Middletown, N. Y.—Henry Mosher, No. 5 Academy avenue.

Lestershire, N. Y.—Charles Chamberlain and George Schermerhorn, repairing.

MORTGAGES, ETC.

Rochester, N. Y.—A. J. Deninger, bill of sale for \$1.

Julius R. Enbom, an Attleboro (Mass.) jeweller and cycle dealer, died last week.

"Jimnie! It Gives More Light than those Big Ones."

UNCLE JOSH DISCOVERS ANOTHER GOOD POINT IN THE

Columbia Automatic GAS LAMP.

We know it embodies all best features of all lamps and no bad features of any.
 It lights at once.

Turns down or out at once.

Requires one-third the carbide necessary in a large lamp.

Water feed takes care of itself.

As good a headlight as the large lamps.

Nothing to get out of order, so not like the large lamps.

Will fit bicycles, buggies or motor vehicles.

Supplied with special dash bracket.

Dealers demand it, so order cuts for your catalogue.

HINE-WATT MFG. CO., 14-16 No. Canal Street, CHICAGO, ILL.



Some British Makers Hard Hit.

Bad as are the majority of the English cycle company reports now being made public, it cannot be said that they are as bad as last year's. Indeed, they are scarcely up to expectations based on doleful reports of the havoc wrought in the trade by war and weather during the last season.

If the prosperous concerns do not show greater earnings than they did a year ago, which is true in most cases, neither do the overcapitalized or shaky ones have to report such heavy losses as before. The latter have put into effect economies and curtailments which, while they have not retrieved the fortunes of the day, have at least kept the deficits within reasonable bounds. Even this showing, however, leaves small comfort for the shareholders, for there is little or no hope of the concerns mentioned weathering the storm as long as they confine themselves solely to bicycle manufacture.

The New Premier Cycle Co. make the worst showing, everything considered, of all. They have a loss of almost \$40,000 to report, as against a profit of ten times as much in 1897, when the new company was formed. As there was a \$50,000 loss last year, however, an optimist might manage to extract some comfort from the present report. This concern still counts among its assets more than \$3,000,000 for goodwill, plant, buildings, etc.

Some \$25,000 is the deficit resulting from the Centaur Cycle Co.'s trading. As there was a loss last year also, the situation seems to call for some decided action, so the concern is to put out a cheap machine—a \$60 one.

Another unfortunate is the New Rapid Cycle Co. As its loss only foots up to \$20,000, however, it is a bagatelle compared with the

\$80,000-odd dropped in 1899. Just what is to be done with this old concern is matter for conjecture, but as it is almost destitute of working capital its future does not look very bright.

Buffalo's Boom Blighted.

In the early days of cycling Buffalo vied with Washington in being looked to as the riders' paradise. Its miles of asphalt streets were the pride of its resident and the envy of less fortunately situated wheelmen.

The next step was the establishment of many bicycle factories in and near the "Queen City of the Lakes." They were stimulated at first by the lucrative business awaiting right at home, and in a short time branched out and secured outside trade. In the mean while the growth of home riders continued, and Buffalo became the cycling city par excellence, in spite of the fact that none of the factories were in the first rank.

Attention is now being called by local papers to the fact that much of Buffalo's glory, in a manufacturing and trade sense, has departed. One by one the factories have closed their doors, some by failure, others through being absorbed, until few of them remain. The list of departed ones is a long one, among the latest being the Buffalo Wheel Co. and the Buffalo Cycle Co., which were merged into the A. B. C. Both of them have been closed, the machinery taken down and shipped to other cities.

In the retail trade the changes have been no less sweeping. Of the many branch stores formerly maintained there by nearly all prominent companies, out of town firms, scarcely one remains. The latest to go was the Cleveland agency, which will go into new hands on January 1, while the Rambler agency has been offered to its present manager, J. H. Isham, and will almost undoubtedly be disposed of either to him or some one else.

This will leave the field almost entirely to the regular dealers.

If experience is the best teacher—and it is—then our experience of

58 YEARS

in making all sorts of bells for all sorts of people,

OUGHT TO CONVINCE YOU

that we know the business pretty thoroughly, and can supply you with the best of bells at the best of prices.

We even make bold to say that we do not believe you can afford to place an order until you see our goods and get our prices.

If you will write us, we will be pleased to give you the reasons.



BEVIN BROS. MFG. CO.,

East Hampton, Conn.

(Business founded 1832.)

Also makers of Trouser Guards, Toe Clips, Lamp Brackets, etc.

THE CUSHION FRAME READ

What others can do YOU can do.

HYGIENIC WHEEL CO.,
220 Broadway, New York.

Detroit, Mich., Oct. 15th, 1900.

GENTLEMEN:—

I have sold at RETAIL HERE in DETROIT during the past season UPWARDS of THREE HUNDRED CUSHION FRAME BICYCLES. Never before in my fifteen years experience as a bicycle dealer have I handled goods that have appealed more quickly to public fancy nor have proven more permanently satisfactory than Cushion Frame bicycles. In my opinion the Cushion Frame is the greatest practical invention in the make-up of a bicycle since the advent of the pneumatic tire. IT IS DOING MORE TO POPULARIZE CYCLING than any other modern improvement. I FIRMLY BELIEVE that the STANDARD WHEEL OF THE FUTURE will be the CUSHION FRAME.

Very sincerely yours,

WM. E. METZGER.

Mr. Metzger has sold all the Cushion Frame bicycles above noted at prices ranging from \$50.00 to \$80.00. Don't you think there is money in handling Cushion Frame models?

Write your manufacturers about them.

NOTE:—Cushions are attached only to HIGH GRADE BICYCLES.

FOOD FOR DISCUSSION.

Ayers's Ideas About Motocycles.

To the Editor of The Bicycling World.

In your editorial, "Experimentation That Is Folly," in your issue of November 22, you seem to dwell upon the non-adaptability of the present form of bicycle frame to the motorcycle.

Would it not put the question far in advance if the motor in the wheel idea was given great attention? We could then let the frame stay just where it is, and it would be a graceful and practical form until long use with the motor dictated a change. With the engine in the rear wheel the question would simply be one of increasing the strength of the rear axle, and any changes made expedient by use could be easily and cheaply accomplished. If this could be promised the purchasers we would feel free to go in at once and buy, trusting to improvements to come in small parts that could be substituted easily and cheaply.

I am thinking of that motor in rear wheel a good deal. It strikes me it is the right place for it. The rear wheel could be broadened and even diameter increased, if necessary, although that would seem superfluous if the tread is broadened. Then couldn't the motor explosion chamber be made oval to adapt it to the narrow space?

What I want to buy is a motor tandem. I believe that form is the best, as it is just as easy to manage alone, and one always has a spare seat for company. And the tandem form is only one wheel length longer than a single, and can be practically as easily stored or carried in a baggage car as a single.

Another point: Why stick to the cranks? Why not abolish and put on a narrow foot-board? The machine might be started by pumping in the mixture by means of a lever on the front handlebar, like the brake lever. Let the frame be low down, and two people astride with one foot each on the ground. The engineer pumps the air in with his handlebar lever and she starts off, jerking the passengers off their feet into their saddles and sailing on—sort of slides the machine under them. Why not? Then, any man could have his frame assembled and buy the motor wheels and stick them in. Every small town has its bicycle manufacturer and maker of frames. The trade is well learned and some mighty good geniuses bloom unseen all over the country. They would all jump at the chance to buy a motor rear wheel, all perfect and ready to operate—the motor rear wheel being the only new thing and beyond their present knowledge. The cost of a motor rear wheel need not be large, and that would be another inducement.

On this premise it would seem that we could arrive at a quick conclusion of the matter by having the experienced motor making centres of the East make the motor wheels while the whole country could adapt

them. This would relieve us of the delay in arriving at correct results, the way we had to wait in the matter of bicycles. We waited about a generation for the bicycle to get perfect, and we want the motor bicycle in a fairly perfect form right away,

BURLEY B. AYERS, Chicago.

Long Cranks can be too Long.

To the Editor of The Bicycling World.

I have been frequently asked by enthusiastic wheelmen who have whiled away their spare moments in my store my opinion as to what can be done to still further perfect the bicycle of to-day. The outcome of exchanged opinion has so nearly coincided with my views that I could not refrain from penning these lines.

New Bedford is a great cycling town. We are fortunate in having but very little snow during the winter months, and so cycling keeps up its popularity pretty much the year round, and the problem is what construction is best adapted for all the year riding.

The coaster brake met with ready favor here, but in my opinion something else was needed to decrease the push. The coaster brake reminds me of my boyhood days, when I used to drag a sled uphill in order to coast down. Just before a rider uses the coaster on his bicycle he wastes more or less energy in getting his start. Admitting that this attachment saves fifteen miles in fifty, is it not still possible to decrease the expenditure of power and the remaining thirty-five miles?

A few years ago I experimented a bit myself, and fitted my wheel, which had a high gear, with long cranks. The result surprised me. I found I could get up the hills much easier, and in a twenty mile run it seemed to require but two-thirds of the exertion necessary with the ordinary crank. By attaching the coaster brake I had a wheel that in my opinion came as near perfection as possible. This combination brought down the exertion of a fifty mile run just one-half.

To my mind this is the bicycle desired for those who are after mild outdoor exercise, rather than the motor bicycle.

I have noticed in your advertising columns that the Orient bicycle for 1901 is being made on these lines, measured to the individual. Here is also a matter of great importance, for the bicycle spoken of as being adapted for me was promptly condemned by my assistant, whose leg measurement is much shorter than mine. In other words, a fit to long cranks and high gear is as necessary as the cranks and gear themselves.

HOYLAND SMITH.

New Bedford, Mass.

"Motocycles and How to Manage Them." The only book of its kind in existence. Price, 75 cents. For Sale by The Goodman Co.

Acetylene gas generators are being stocked by English agents as a side line, and, it is said, with good results.

Coaster-Brakes and Chain Lines.

As a rule, the coaster-brake hubs are made in a variety of widths, so that they will line up when fitted to machines having different chain lines.

But it is not always possible to make the range of sizes sufficiently comprehensive, and in such cases the repairer who fits the new hub is obliged to fall back on his own resources to set matters to rights. Many different ways of doing this will suggest themselves, ranging from the makeshift plan of "pulling over" the chain stays until the wheels are in some sort of alignment to the more workmanlike method of facing off the cones, dishing the wheel, etc. A writer in an English contemporary describes a way which he has found to work admirably.

At first sight, he says, the average maker would say that it was impossible to make a workmanlike job with a bracket of 1½ inches and a hub of 1½-inch chain line, yet this can be done to even a greater extent than indicated with perfect success, both the chain and the wheels being in perfect alignment.

Take, for example, the present Morrow hub, which is presumed to have a chain line of 1½ inches; this measures nearer 1½ inches, and is expected to fit the B. S. A. racer size, for which at present it is too wide for the compression stays of the machine, and has neither cones nor spindle adapted for the machine without alteration; but with an hour's work it can be adapted to the job.

The first thing to do is to file two flats on the spindle until the chain adjusting cams will slide readily upon it. Of course, care must be exercised to see that the flats are in a direct line with one another. Then the left hand cone must be softened and turned down to fit inside the chain adjusting cam; it should also be shortened until it brings the rear chain cog in line with the driving sprocket. This must be carefully tested, as usual, with straight edge, and when accomplished it will be found to have rendered the chain line correct at the expense of the flanges of the hub, which are now some eighth of an inch too far from the centre line of the frame.

To remedy this is simple; the wheel is built with an exactly similar amount of dish on the other side, thus bringing the rim and tire in the centre of the compression stays, and at the same time parallel with the central plane of the machine. There is no possible objection to dishing a wheel in this way; in fact, some hubs are made so that in the ordinary way the flanges are not central, and in these cases one set of spokes is always more vertical than the other. In the above instance we have taken the case of fitting a hub to an existing frame.

Of course, where the frame is built to take the hub in the first instance the trouble of softening and altering the cones would be omitted, and the necessary adjustment made by altering the compression stays until the chain wheels were in line.

BINDLEY TALKS PRICE

Pittsburg Jobber Discusses the Duty of the Manufacturer in That Regard.

"Great diversity of opinion exists among merchants, and even among manufacturers, as to the manufacturers' duty and interest in the protection of such prices as may be placed upon the wares of his production—many holding religiously to the view that when a manufacturer places a price upon his product, with a proper differential allowed the distributor to cover his service, risk and proper return for his investment, he, the manufacturer, has completed his full duty, and that no further protection is necessary, requisite or desirable," said John Bindley, the well known Pittsburg jobber, in his address at the annual convention of the National Hardware Association.

"Others contend that the manufacturer has a greater, higher and far more reaching interest in the goods he manufactures, and should and must protect prices on same, because until they reach the hands of the consumer he cannot afford to lose his concern in them, on account of their sure deterioration. Now, which method is correct, and which is the higher ideal of merchandising? A short analysis will, we believe, assist us in reaching a proper conclusion.

"Many merchants—and their views are coincided in by quite a respectable number of manufacturers—reason that upon the purchase by them of any particular article they are permitted, because of their absolute ownership, to be the sole arbiter as to the price at which they shall market or dispose of same, persuading themselves that, once the article becomes theirs through purchase, the producer or manufacturer has no further interest in the matter, evidently overlooking the fact that in many instances an expressed or implied agreement was understood as to the selling price.

"Is not this view one of unadulterated selfishness, an ignoring of the producers' rights, and an entire abrogation of the Golden Rule of doing unto others as you would have others do unto you? Will such interpretation and policy permit us to attain the higher method of doing business? We believe they will not.

"The manufacturer has, and should always have, a direct and vital interest in the price at which goods of his particular brand or make reach the consumer. His business reputation, success and existence practically depend upon it. The proper care of his business, and distribution of his products at the present, and more especially its perpetuation in the future, identify him with an inherent interest which far surpasses that which it is possible for any merchant to have. The thoughtful and considerate merchant who keeps constantly before him our motto

of 'High standard of business methods' should recognize and conform his efforts to the consideration of the rights already touched upon, that is so justly the due of the manufacturer. If these premises are correct it becomes perfectly proper for the maker in conference with the merchant to arrange, adjust and agree upon a proper compensation to be allotted the distributor for the marketing of his wares, and it is his prerogative, and manifest right and duty, to fix the price at which the retailer dealer shall vend his products. If his goods are marked too high it means the eventual elimination of them from the market, and if too low the same results will be encountered; therefore, how wonderfully important and vital are his interests.

"Now, what means shall be employed to maintain the proper equilibrium?

"If prices are too low, the correct and just law of compensation cannot be attained, and as a result of this condition the retailer as well as the jobber (a case of 'united we stand' because of mutual interest) commences a systematic method to bring about an enlarged compensation for their services, and the manufacturer, in recognition of the justness of their position, endeavors to meet their views.

"But how can it be best accomplished, and what alternative has he to bring about that which is so just and desirable to all?

"He, of course, can make concessions, but only at the expense of a serious inroad upon his profits, which he realizes are now altogether too limited; or he can cheapen the quality of his goods. The acceptance of either proposition is not desired by him; to accept the first may mean the making of such a serious inroad upon his profits as may result in his retirement from business; or, should the second proposition be deemed the wisest method by which to better correct the matter, it must mean the deterioration in quality which surely sooner or later will bring its own destruction.

"We therefore hold that the manufacturer has a most important, direct and vital interest in the price of his goods at retail, as well as in the differentials which are paid to the distributor—in fact, as we see it, so vast is his interest, because his very business existence is at stake, that he should at all times and under all circumstances be the arbiter of prices and differentials; especially applicable in his case is the adage, 'Self-preservation is the first law of nature.' The most important duty he owes is to himself, and that is to fix a proper price, with just differentials, and then enforce without fear or favor their strict observance by both the jobber and the retailer.

"To attain the greatest success in marketing the product of mill or factory it is essential that the entente cordiale shall exist between the manufacturer and seller; to satisfactorily bring this about the producer must arrange that the jobber has a fair margin or differential; it must be sufficient to cover his fixed charges, risks undertaken

and a fair return for his investment. It should be the bounden duty of the manufacturers to provide and protect the differential and to cultivate the jobber who is honestly living up to his wishes and who is earnestly engaged in the promotion of his interests. He is not only entitled to it under reasonable conditions, but should have the protection at any cost; furthermore, those honestly living up to specified arrangements should not be classed with and made to suffer for the acts of the unscrupulous, as it would be more than strange indeed were no black sheep to be found in the ranks of those who enter the field. Neither should those who are faithfully trying to keep the trust suffer for the acts of those jobbers who take the erroneous method of trying to increase their sales by cutting prices at the expense of the manufacturer, believing that by this subterfuge they can increase their business, at the same time forgetting or overlooking the fact that only one result can follow; all are obliged to meet his quotations, and no advantage arises therefrom, but a great injury is done to and wrong perpetrated on the merchant, the compensation being in this line for himself and competitors a reduction of profits or the doing of so much business without compensation.

"But as to the manufacturer, how about him? He has been injured more than all. Why? Because, no profit being derived from the sale of his product, distributors commence to cast about for another make or line of goods to take the place of the non-profitable commodity; gradually he finds an inroad here and a falling off there, until finally his trade becomes very much affected, with the result that to save himself heroic measures must be introduced; and experience has taught us how much easier it is to retain than to reclaim.

"Now, under the foregoing conditions do you realize how direct, intense and far-reaching is the interest of the producer of goods? It becomes absolutely essential that he should and must protect his products to no less an extent than that prices should and must be regulated by him, and the differential absolutely controlled. It should be his imperative duty to enforce arbitrary action that may become necessary to protect his own wares, as well as to protect those who faithfully sustain and support his methods, in their disposal, and it is the one great wish of the speaker's heart that the relation between jobber and manufacturer may become so close, so intimate and so confidential that the great business equilibrium of our hardware line may be so evenly balanced and so correctly adjusted as to bring to all participating therein the greatest, most permanent and satisfactory returns."

Post yourself on Motorcycles. Study up on the cycle of the future. "Motorcycles and How to Manage Them" will help you amazingly. The illustrations show the "insides" of the motor and the text explains. For sale by The Goodman Co., New York. Price 75 cents.

Device Really Runs Free.

What is characterized by a competent authority as one of the cleverest pieces of mechanism seen for a considerable time is a coaster or "free wheel" device of English origin. It is the invention of William Jones, Birmingham, England, and contains a number of novel and meritorious features.

In this device the chain wheel is held entirely out of contact with the hub while the rider is coasting, so that the rear wheel then runs as independently of the driving gear as does the front one. This result is obtained by the following means: A cone is screwed on to the end of the hub, and is locked by the ring nut. A similar cone is screwed on to a disk gripped between the bearing and the fork end. The revolving cone and the fixed cone have serrated surfaces. Between them lies the clutch ring, which has correspondingly serrated surfaces and also a quick pitch screw with several "starts" on its periphery. The chain ring has an internal screw thread loosely engaging with that, and it has also internal conical flanges which cover the cones. The result of this construction is that when the rider begins to pedal forward the chain ring turns slightly on the clutch ring, and, the screw threads being left-handed, the ring moves over to the left until the serrations engage with the other serrations. As the ring cannot now turn forward on the hub, further pull on the chain causes the cone to be gripped be-

tween the flange and the ring, and the chain ring to be locked positively to the hub.

Directly the rider begins to free-wheel the hub and clutch ring turn round in the chain ring, and the clutch ring moves over to the cone and engages therewith by means of the serrations. At the same time the chain ring moves slightly to the left and becomes hung up, so to speak, by the flange on the stationary cone. The lateral movement of the chain ring is only about one-thirty-second of an inch, and is of no consequence anyway, as the chain is not at work. As already mentioned, the hub now rotates absolutely out of contact with the chain ring and clutch ring, and therefore there is neither friction, noise nor wear.

There are very few parts in the device, and what there are are all of substantial dimensions; the conical surfaces insure the parts pulling true for driving, and the vertical surfaces on the cones and clutch ring relieve the serrations of the lateral pressure. In the construction described the pedal to the rear in free-wheeling may be used as a fixed step.

But these are developments. In some the cone is capable of rotating backward, and is connected up to a brake which is applied when the rider back-pedals; in others means are provided for enabling the rider to prevent the clutch ring disengaging from the cone, so that he can enjoy the advantages of a fixed gear whenever he may feel so disposed.

How to Lock Bearings.

Why nearly all bearings should depend on the axle nut for its final locking device is one of those things no man can find out. Other ways of locking could be devised, and not a few manufacturers employ some one of them. But the majority continue in the same old rut, probably regarding the matter as one not worthy of attention.

"The adjustment of bearings should be entirely independent of the outer lock nut," says a rider touching on this feature. "By this I mean that we should be able to leave a bearing properly adjusted and locked, so that when we lighten the outer nut it may not affect the bearing. In the machines used by my brothers and myself the adjustment of the bearings is a temper testing job. We leave the adjusting cone screwed up properly, as we think, but when we tighten the outer nut why the bearing is solid! We slacken the cone a little, tighten up the outer nut and the wheel shakes like a cart wheel. It usually require four or five screwings and unscrewings to get the adjustment to satisfy."

No Rush to Purchase it.

Fresh efforts are being made to popularize the Bricknell auxiliary hand gear, an English device which permits the rider to use his hands to aid in the propulsion of the machine. The device gives little promise of setting the river on fire, however.

THE GOODMAN COMPANY,
124 Tribune Building, New York.

Enclosed find \$2.00 for which enter my subscription
to the BICYCLING WORLD for one year, commencing
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The best Shelby tubing, Thor hubs, LeFever chains, Fairbanks rims, Excelsior spokes, Kelly bars, special crank hanger, guaranteed. In fact, **OLIVE BICYCLES** for 1901 embody all that's best in cycle construction. The prices run from \$30 to \$55.

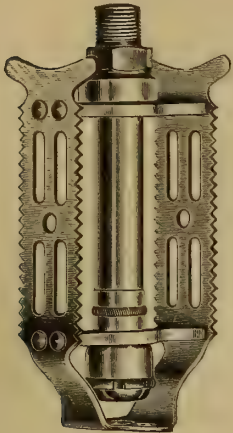
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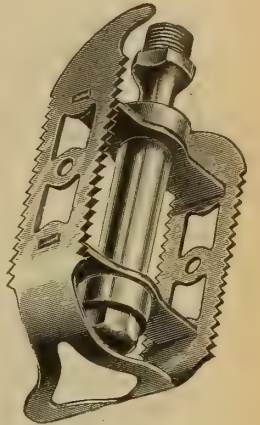
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We could make cheap pedals as easily as anyone. But we won't do it. We place quality before price. The material, workmanship and finish of the Curtis pedals is the very best the country affords. If there was anything better we would be using it.

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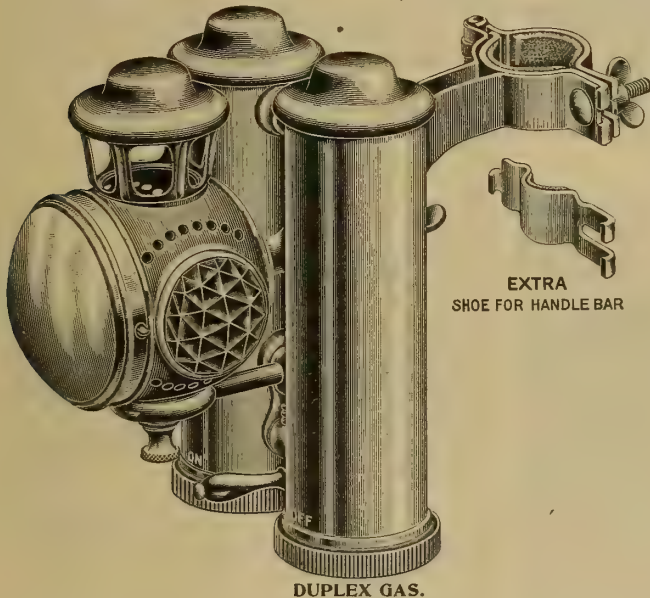


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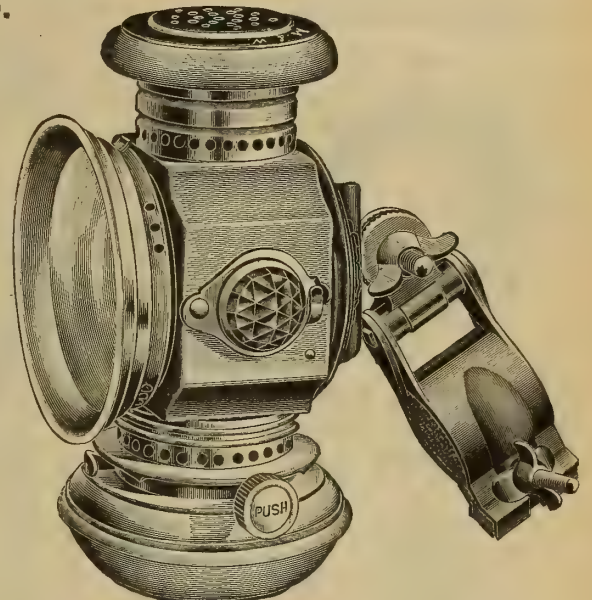
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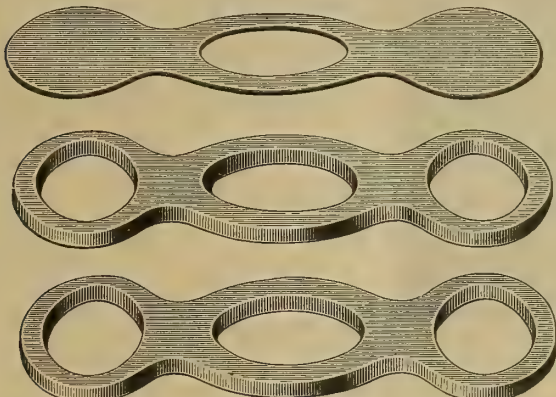
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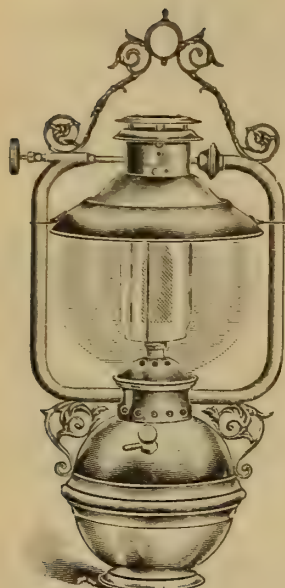
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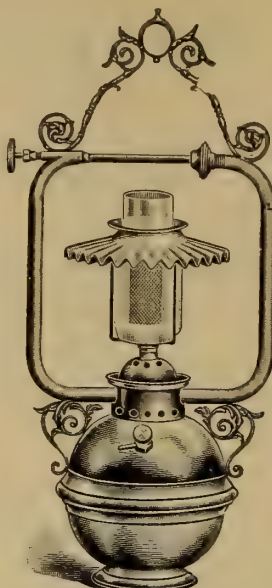
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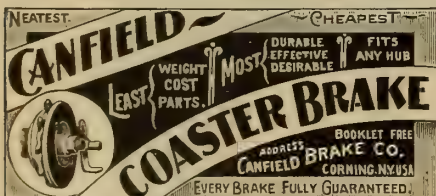
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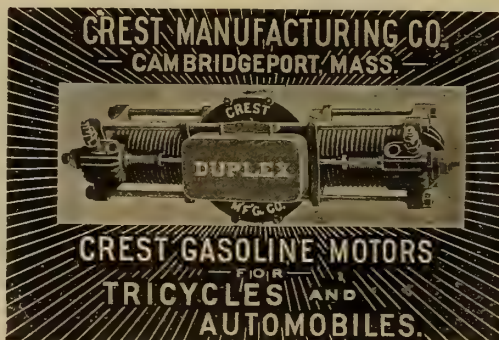
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 Morse Twin Roller. Fits regular
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CREST INDESTRUCTIBLE SPARKING PLUGS,
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Sheet Steel Bicycle Parts.

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THE CROSBY COMPANY, Buffalo, N. Y.

Began and Ended a Butcher.

Almost like a fairy tale is the history of James William Walter Tonks, who has been passing through the English bankruptcy courts. He began life's work as a butcher, studied engineering, saved some \$1,750 and invested it in the bicycle manufacturing business. In 1896 this was transformed into a public company, Tonks getting \$55,000 in cash and \$45,000 in stock as his share. He was also appointed works manager at \$75 per week, bought a fine residence, invested in horses and carriages, etc. The crash came, and Tonks resumed work as a butcher after he had made a personal assignment and paid less than one cent on the dollar.

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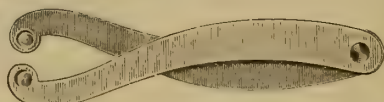
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If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

Side Plates Slant.

Especially designed for use with long cranks is a pedal recently brought out by the Birmingham Small Arms Co., the invention of Crompton, the long crank and high gear advocate.

In this pedal the side plates, instead of being placed at right angles with the end plates, as usual, are slanted in a forward direction, about thirty degrees. The idea is to enable the rider to pull his pedals from the bottom of the stroke, and so enable him to get them over the dead centre. With the ordinary shaped pedals this cannot be done without depressing the toes, which is an objection. With the plates placed at this angle, it is obvious to any one that the more the rider pulls back, even when the foot is quite flat, the firmer becomes the grip on the pedal, and so he is enabled to help the pedal over the dead centre.

Motor Attached to Forkside.

Where to place the engine on a motor bicycle is the perplexing problem, and it is not often that two designers solve it in the same way. An English firm has hit upon the side of the front fork as the best place, and fastens the motor there.

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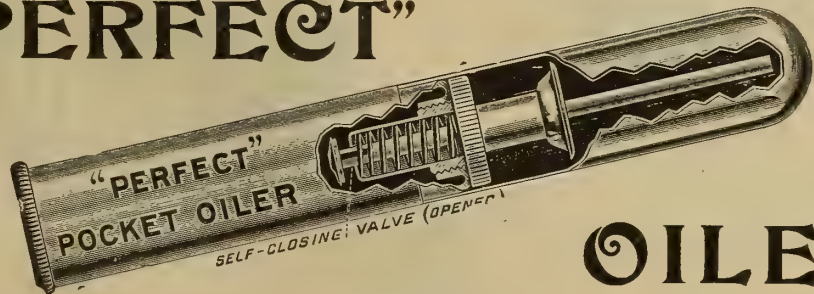
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"PERFECT"



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OILER.

Used by leading makers of high-grade bicycles. The only oiler that regulates supply of oil. CANNOT LEAK. We make cheaper oilers also, of unequalled quality.

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MORROW
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by the teeth of its sprocket but you can tell its quality by the chain that runs over them.

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you may be sure that the makers of the bicycle are not building on the Cheap John plan. If the bicycles you handle are not fitted with Duckworths, specify that chain when you order. If it is refused you, you will have a certain cue to the quality of the wheel.

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Selling Agents, BRANDENBURG BROS. & WALLACE, New York and Chicago

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Is completely answered without the use of technical language and a reliable directory of makers of motor-vehicles and their parts is given in a special number of

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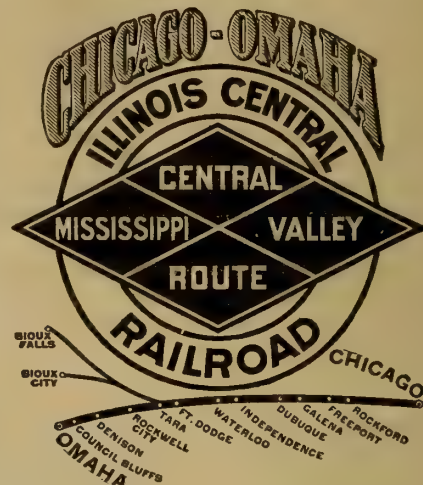
G. A. DAMON. J. L. DAMON. J. L. DAMON, Jr.

SANGER ADJUSTABLE HANDLE BAR.**"THE ORIGINAL AND ONLY."**

Patented October 10, 1899.

SANGER HANDLE BAR AND PLATING CO.,

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Via Rockford, Freeport, Dubuque, Independence, Waterloo, Webster City, Fort Dodge, Rockwell City, Denison and Council Bluffs.

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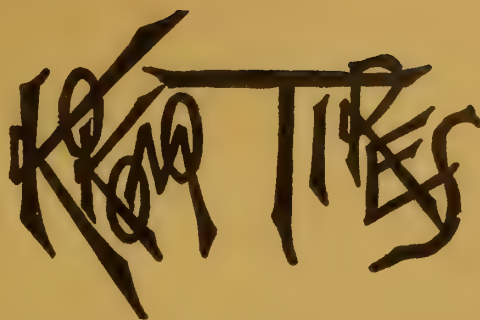
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By A. J. WILSON London, England.

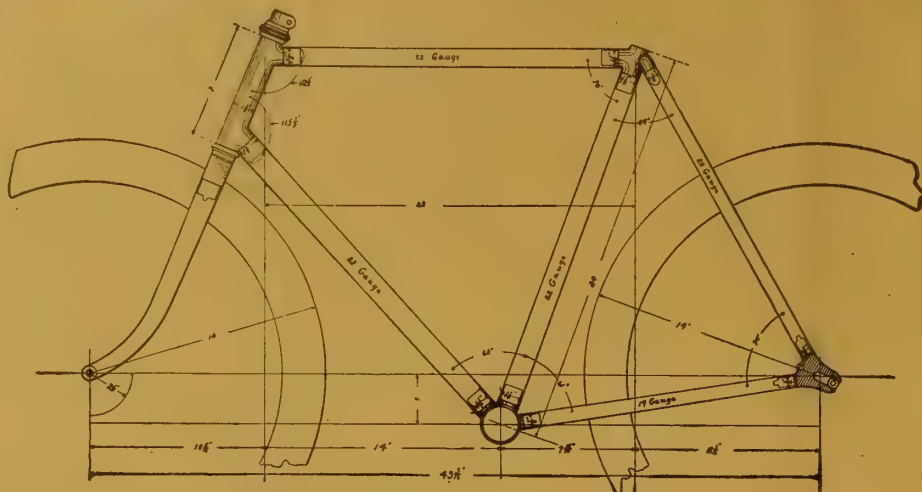
The Only Book of the Sort in Existence

Profusely illustrated and valuable as a text book to those who ride and those who mean to ride motocyycles.

PRICE - 75 Cents.

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1901—SOMETHING NEW FOR—1901



Scientific Frame Construction. Model No. 14.

SAFETY IN "BRASS LINED" TUBING, FORKS AND STAYS
Prevents rusting and weakening of Cycle Frames,
and the adoption of

"SCIENTIFIC FRAME CONSTRUCTION"

Adds new "TALKING FEATURES" and EXTRA PROFITS for next season's trade. In cycle construction it has been the general practice to have Rear and Front Forks tapered to distribute strength in proportion to the strain to be met. The larger Tubing in the main frame should also be tapered throughout its length for the same reason. Riders readily appreciate this argument, as it appeals to their common sense, and they buy accordingly.

In "Scientific Frame Construction" the lower front Tubes are tapered throughout their length from $1\frac{3}{8}$ inches at head to $1\frac{1}{4}$ inches diameter at the crank hanger—the upright or seat mast Tube is tapered from $1\frac{1}{4}$ inches at crank hanger to $1\frac{1}{8}$ inches at top, and the top bar is a straight $1\frac{1}{8}$ inches diameter Tube. This results in all $1\frac{1}{4}$ inches lug crank hangers and $1\frac{1}{8}$ lug cluster fittings being standard, and the heads with $1\frac{1}{8}$ inches top lugs and $1\frac{3}{8}$ inches bottom lugs are all the fittings required as special. The Crosby Co., of Buffalo, N. Y., and all the principal fittings makers can supply these heads.

This construction lessens expenses for allowances, repairs and expressage on broken frames, and what dealer, jobber or cycle manufacturer has not had a lot of expense and annoyance in this line, not to mention damage to his trade and good will by frames occasionally breaking, when if "Scientific Frame Construction" had been adopted and the strain distributed over a greater length of Tubing the breakages would probably not have occurred.

Shop-right licenses for manufacturing of frames of this character can be had by dealing with the undersigned.

Crescent Rims made from "Swedoh" Spring Steel, Extra Strong for Automobiles and Motor Cycles.
Hot and Cold Rolled Strip Steel for Pressed Stamped and Drawn Work.



THE WILMOT & HOBBS MFG. CO.

Main Office and Works,

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Business Established, 1877; Incorporated, 1884.

New York Office, 258 Broadway.

The Bicycling World

ANL MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., December 13, 1900.

No. 11.

STEP UP, SAYS WALTHAM

"We Own the Extension Handlebar Patent and it's Time to Settle."

The Waltham Mfg. Co. has evidently adopted a policy of patent enforcement. Already they have actions pending against the American Bicycle Co. and the Iver Johnson Arms and Cycle Works for alleged infringement of certain Metz patents, and these have been followed by the unexpected exploitation of still another patent which was not generally known to be the property of the Waltham people—the one covering the now popular forward extension handlebar.

This patent, design No. 31,007, was issued to C. H. Metz, June 30, 1899, and covers the pattern shown by the accompanying illustration. The leading features of the design are thus described:

"As shown in the drawing, the cylindrical portion 5 has the convex upper end 6, slightly below which end is the laterally-extending and downwardly-inclined member 7, having the transverse collar 8, from the opposite side of which extends the perforated hub 9."

The unexpected application of the patent created something of a flutter in the trade, but according to best reports it has been recognized and acknowledged by several manufacturers.

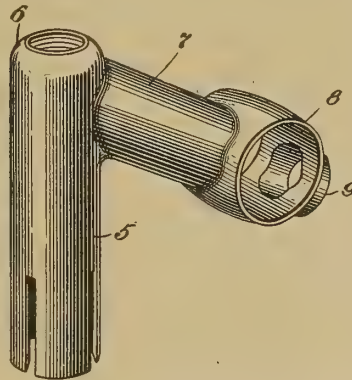
"We introduced the forward extension handlebar and used it for one season before anyone else had it," say the Waltham people in talking of the matter; "at first we expected to keep it as an Orient feature, not licensing anyone else to make it, but the device has come into such universal popularity that we have decided to license a number of the reputable makers."

"The licenses will also contain a clause requiring the maker to uphold a standard price on the bar, which will obviate ruinous price cutting and the worse feature which always accompanies it, of the deterioration of the product."

"Some of the handlebar makers have already taken a license, and so far as we are at present able to judge, we believe all of them, or practically all, will take one, es-

pecially as we are not inclined to be at all unreasonable."

"As the patent makes plain, it covers any



post of this description where the extension is parallel with the top bar of the bicycle."

New Orleans Organizes.

The New Orleans Cycle Board of Trade was organized in that city on December 4 and as a result it is believed that trade conditions in the Southern metropolis will be distinctly bettered. The following are the officers of the organization: Ginder Abbott, president; Frank White, vice-president; Ed. C. Stoddard, secretary, and H. A. Testard, treasurer.

Several committees were appointed, the most important having to do with the compilation of a tariff on repair work and a schedule of prices on the standard sundries.

Practically all of the dealers in New Orleans are members of the organization.

"Cycle Age" in Straits.

The Cycle Age Publishing Co., of Chicago, went into the hands of a receiver on Monday last. While the trouble is generally regretted it is not wholly surprising, as it is known that the company has suffered from internal dissension for some time. The two papers issued by the company, the Cycle Age and the Motor Age, will, however, appear this week as usual and it seems scarcely probable that the embarrassment affecting two such splendid properties will not be successfully bridged.

Recent Incorporations.

Denver, Col.—Brooke Airless Pneumatic Tire Co., with \$10,000 capital, to manufacture and sell pneumatic tires. Incorporators: F. A. Burnell, M. E. Brooke and S. Williams, all of Denver.

L. & F. MOTOR COMING

Detroiters Who Made the Bevel Gear Practical take up Motor-Perfection.

So general and widespread is the interest in motorcycles that there is no foretelling what a day may bring forth, nor by whom it may be brought.

For this reason nothing should be really surprising, but the news that such a firm as the Leland & Faulconer Mfg. Co., of Detroit, Mich., have taken up and are well advanced with a gasoline motor of their own design will prove as great a surprise as is possible under the circumstances.

General Manager Leland was in New York on Friday last, and gave the Bicycling World the first intimation of the fact. While their motor is well advanced, Mr. Leland says it is not quite ready for exploitation or description, but he did say that he believes they have an engine which overcomes many of the ills and eccentricities to which motors are heir.

These bare statements will be, however, sufficient to create a great wave of interest, for than the Leland & Faulconer people and plant it is difficult to conceive any one or any plant identified with the cycle trade better qualified or better equipped to undertake a work of the sort. Their long experience in designing and constructing special machinery of every nature, capped by their production of the machine and the gears that made the bevel gear chainless possible and practical, gives them a standing that does not admit of dispute.

Their originality of design, coupled with their skilful and superb workmanship, will be sufficient to make the Leland & Faulconer motor an object that is awaited with unusually uncommon interest and impatience.

Fire Attacks Straus.

A Saturday night fire, starting in a store next door, burned out the Straus Tire and Rubber Co., 265 Greenwich street, New York, and left the place a total wreck. The extent of the loss cannot be ascertained at the present time, but it is covered by insurance. The Straus Co. have established temporary quarters at 127 Duane street,

ENGLISH EVOLUTIONS

London Shows Held Little that is Instructive to Americans—The Newest Ideas Carefully Sifted.

London, Nov. 28.—The shows have given us nothing very new or very startling in the matter of cycles. In some respects it might have been better if no shows had been held, and in any case the arguments in favor of amalgamation are greatly strengthened this year by the comparative smallness of both exhibitions compared with those of former years. Not that either show can be said to be a failure, but both are very perceptibly smaller than heretofore. The National exhibits of cycles hardly cover half the space occupied of late years, but what is lacking in quantity is made up for by quality, for the machines exhibited are of, for the most part, high class. At the Stanley a more mixed collection is on view, but the variety is greater, and there is more of interest to repay the visitor.

SPRING FRAMES THE FEATURE.

The spring frame is the great revival—every year it would seem that there must be a revival of some kind—and at both shows samples were to be seen. The "Flexible" is, I think, by far the best of its class. The compression stays are constructed of flat spring-steel blades, placed so that the give of the springs will allow the rear wheel to rise and fall. The backstays are insulated from the saddle-lug by means of flat scroll springs, two being employed. These no doubt assist the lateral stability of the machine. The front fork blades are each made of two plates of spring steel, the broader surfaces being parallel with the hub; these plates touch near the bottom, but are separated about an inch at the top. The machine is not unlike the ordinary pattern rear driver, except so far as the scroll springs are concerned.

MAKES FLAT STEEL SERVE.

In the case of the "Flexor," a machine put upon the market by the Crypto Works Co., Ltd., the old device of hinging the back fork at the crank-bracket is followed. No backstays are used, and the spring consists of a piece of tempered steel running forward from the compression stays, to which it is attached, to a point some six inches in front of the crank-bracket. Here it is attached by a hinge to a tension rod from the top of the steering-socket.

The "Hobart" flexible frame also obtains its spring from a piece of flat steel, but this time this is attached to the crank-bracket, and runs rearward to the point where the bridge of the compression stays should be, where it is attached to the stays. A telescopic arrangement is fitted immediately above the bridge of the backstays, and between that point and the saddle-lug. No springs are provided to the front wheel.

The other spring frames shown combine the old well-known principles which were tried and failed years ago.

USES A RUBBER BLADDER.

A variation is the Pneumatic frame, in which the compression stays are hinged immediately behind the crank-bracket, and carry the backstays rigidly brazed to their rear ends. The backstays are united to a round disc, about three inches in diameter, and made somewhat convex. From the saddle-lug there descends a small tube carrying another disc, which, is however, concave and somewhat deep. In this is placed a rubber bladder and over it a piece of rubber and fabric, which is retained under the turned-over edges of the box containing the bulb by the pressure of the air when the latter is inflated. The necessary lateral rigidity of the backstays is said to be attained by the mere pressure of the pneumatic pad on the disc at their upper end. The front wheel is insulated in somewhat similar manner, the old device of hinging arms to the bottom of the fork-blades being adopted. Additional upright stays, terminating in much the same manner as those at the back, are employed, and rest in a similar pneumatic arrangement fixed just in front of the head. In one pattern machine the fork crown itself is made sufficiently large to contain the rubber pad.

SEEKING RIGIDITY, NOT SPRINGS.

As opposed to the spring frame idea, we have also a movement to further increase the rigidity of the ordinary diamond frame by the crossing of two tubes, one running from the saddle-lug to the bottom of the steering socket and the other from the top of the head to a point about half way down the diagonal. This frame has been taken up by the Components Co., Ltd., and several are to be seen on many of the stands at both shows. The design is that of G. L. Morris, of the Referee Cycle Co., Ltd.

PETERSEN'S CANTILEVER IN EVIDENCE.

The "Petersen" frame is still exhibited, although it has failed to catch on, in spite of the wonderful rides accomplished upon it by Green, with the aid of the "Bricknell" hand gear, which latter is also on view. If there be really any advantage in the use of this gear, it certainly requires months of practice to get used to the movement; and, this being so, I hardly think it will ever prove a commercial success, no matter how much it may be "boomed" by record rides.

NEW HANDLE-BAR ADJUSTMENT.

Osmonds, Ltd., have a very neat method of adjusting the rear handle-bar of a tandem. In the top tube of the frame is a lug, provided with ears and partially slit. Through this passes a solid block, which is also slit. Into this block the two halves of the bar are screwed at slight angles, and when the block is turned the bars can be placed in nearly all possible positions, the final adjustment being obtained by screwing

them further in or out of the block, a half turn or less being all that is required. When the handles are in a comfortable position the bolt gripping the main lug is tightened and the block thus held, while the grip upon it also secures the portions of the bar in any position in which they may have been set.

WHAT THE WAR DEVELOPED.

The war has raised a certain amount of interest in military cycles, and a great number of firms exhibit machines of this class. In connection with this branch of cycling one folding machine is shown, namely, Barry-Hall's Patent "Detachable." In this the compression stays are divided just behind the crank-bracket, and in the portions from the bracket are brazed solid ends, which are tapered. The ends of the stays are bored out taper to fit over these plugs. To the bracket is hinged a small telescopic tube containing a very strong spiral spring, which is provided with a hook to pass over the bridge between the ends of the detachable stays. When the latter are in place the action of the spring tends to keep them secure on the taper plugs. Similar tapered bits are used for the backstays, but in this case, as the weight is on them, the only catch required is a flat spring dropping into a notch. The front fork is similarly treated just below the crown. This bicycle may possibly appeal to military men, who are not as a rule very mechanical, but it will not find a market among the average riders.

ECCENTRIC BRACKETS FIND FAVOR.

Eccentric crank brackets appear to be coming in. The Raleigh Cycle Co., Ltd., have improved their bracket immensely, the adjustment now being made by means of a worm screw, gearing with a toothed plate on the eccentric barrel. The barrel is locked in position by means of the grip obtained upon the ends by the locking rings of the collars, which press against shouldered washers fitted very accurately to the ends of the brackets. The Triumph bracket is also a good one, in which the mere tightening of a nut pulls a taper headed bolt into a slot at one end of the barrel disc, while the nut, being also tapered, expands a similar slot in the other. An identically similar plan is adopted for the locking of the adjusting collar of the actual bearing. The "Bradbury" bracket is a pattern extremely like that employed by the Raleigh Co., Ltd.

COASTER-BRAKE THAT CAUGHT ON.

The Lea-Francis free wheel clutch is a pattern which has been much commented upon. It is without doubt one of the best made, and runs more freely than any other yet brought out. Moreover, the peculiar arrangement allows the utmost truth in the running. The hub is of the cup-and-cone type, and the fixed cone is of the double pattern. The back is sloped to form a ball race, another cone screwing upon the spindle and forming the adjusting cone of a four point contact bearing, on which the chain ring is mounted. The central portion of this

ring contains four pawls which rise by means of the usual light springs. The teeth are cut on the inner part of the hub. By this arrangement it will be seen that when the rider is free wheeling the chain-ring not only remains stationary, but also the bearing on which it is mounted. In fact, the hub runs with no more friction than that of the front wheel. There are several arrangements designed to give a free wheel at will, and I should not be at all surprised to find that these may become popular. The "Ralna" seems to be a very good device, in which a ring sliding on a square on the hub engages with large lateral teeth on the chain ring, being kept in contact by means of a ring in a recessed disc, which ring is controlled by a strong spring carried in a tube clipped to the under side of the compression stay. When this spring is moved by means of a "Bowden" wire from the handle the ring is pulled outward, and a bayonet catch, worked by the action of the hub, immediately disengages the lateral teeth.

ANOTHER COASTER-BRAKE IDEA.

Several clutches are also shown which are designed to allow back pedalling, or, at any rate, to permit of the machine being wheeled backward even when provided with a back-pedalling brake. Hoffmann's is one of the latter type. It is a rather complicated piece of mechanism, but is beautifully made. The hub is arranged so that it can actually have a slight lateral movement on the spindle, this being arrived at by allowing the collars of the ball races to slide. The collars are of the four point contact type. One is mounted on a fixed sleeve over the spindle, against the end of which sleeve is fitted a spiral spring, wound round the spindle and pressing the opposite collar outward. To the sleeve is fitted a disc, against which the rear end of the hub is pressed when the spring is compressed by the action of a ball clutch device giving a lateral pressure to the hub. The forward clutch is also of the ball-drive pattern. A certain amount of back-pedalling force can be obtained, as the hub slips rather on the fixed disc.

SULLIVAN'S GOOD THING.

Sullivan's back-pedalling clutch does not act as a brake at all, but is designed to give actual back-pedalling power. It certainly succeeds, and when well made should be a good thing. Unfortunately the sample shown is very rough. The arrangement is very simple, consisting of four rollers, and of having the inclined planes in the chain ring cut in opposite directions. When free wheeling, the rollers lie in the bottoms of the V-recesses thus formed. Each roller is held between two rivets passing through the chain ring, and secured to plates free to revolve on the hub at each side of the chain ring. On the compression stay is a small steel plate, having an inclined groove in which is one steel ball. When the rider pedals forward the ball sinks back into the plate; when he free wheels it is also out of action, or only revolving by its contact with

the plate carrying the rollers, but when he back-pedals the ball is brought into greater pressure laterally with the disc, and momentarily retards the latter, with the result that the rollers are carried into contact with the reverse inclined planes in the chain-ring, when back-pedalling is possible.

TWO NEW RIM BRAKES.

The faulty action of rim brakes has caused a great number of new ideas in this line to be shown. The Crabbe is perhaps the most simple, and it consists of merely a horseshoe brake, constructed of flat spring steel, so that it yields somewhat to any inequality of the rim. Unfortunately this does not prevent uneven vertical action.

The "Perfect" brake consists of a pair of calliper arms, having friction blocks at their extremities, and so set that they may be brought into contact with the sides of the rim. The arms are hinged to a sliding bolt which can rise or fall in a vertical bearing, and is usually retained in the central position by a couple of light spiral springs. This movement is to allow for vertical inequalities in the wheel. The brake is applied by a Bowden wire, which simply pulls the arms together, the non-extensible covering taking a bearing on one arm, while the moving wire is attached to the other. The movement allows of any reasonable side sway, and the brake acts with wonderful smoothness.

GIBBS'S QUEER FREAK.

A curious device is shown by a gentleman of the name of Gibbs. It is called the Auxiliary Gear. The frame is made air-tight, and two pumps are carried parallel with the front fork blades. The piston-rods of these are attached to cranks from the front wheel, and when in action the pumps oscillate. A clutch throws them in or out of gear. When descending a hill they are set in motion by the front wheel and pump air into the frame of the machine, which is tested to 3,000 lbs. to the square inch, but normally works at 1,000 lbs. or less—very much less I should say. Here it is stored by means of a non-return valve, and when the machine comes to the next ascent the rider opens a tap and lets the air out through the pumps, which then become a pair of oscillating cylinders. It is estimated that the capacity of the frame is enough to drive the machine 6 yards, 2 feet and 9.63-64 inches!

SINECYCLES AT \$210.

The Sinecycle is a beautiful contrivance for teaching the art of balancing. It has no wheels and is made in three forms. The first stage is for beginners, and there are no pedals. The second is for pupils who are alive at the end of the first trial. Pedals are fitted to this machine. The third stage is for those who have survived the second ordeal, and the machine is fitted with a fly wheel. When the pupil can ride this, or rather sit on it, he is turned loose on the road as a bold, bad cyclist. The whole cost of the machines is only \$210, so they are "likely to be found in every home."

WHO'LL BE THERE

Some of the Notables Who have Bought Space for the New York Show.

Space for the New York cycle show is selling rapidly; enough has already been contracted for to assure a representative exhibition, as the following of the more notable exhibitors makes plain: De Dion-Bouton Motorette Company, Brooklyn, N. Y.; American Bicycle Company, New York; Hendee Manufacturing Company, Springfield, Mass.; Manhattan Storage Company, Philadelphia; Boston Cycle Company, Boston; Loomis Automobile Company, Westfield Mass.; C. J. Downing, New York; Warwick Cycle Manufacturing Company, Springfield, Mass.; Mobile Company of America, New York; Willis Park Row Bicycle Company, New York; E. R. Thomas Motor Company, Buffalo, N. Y.; William Hengerer Company, Buffalo, N. Y.; John S. Leng's Son & Co., New York; C. J. Iven & Co., Rochester, N. Y.; Hartford Rubber Works Company, New York; Riggs-Spencer Company, Rochester, N. Y.; Badger Brass Manufacturing Company, Kenosha, Wis.; Fisk Rubber Company, Chicopee Falls, Mass.; P. A. Frasse & Co., New York; E. A. Brecher & Co., New York; Diamond Rubber Company, Akron, Ohio; P. & F. Corbin, New Britain, Conn.; Twentieth Century Manufacturing Company, New York; American Dunlop Tire Company, Belleville, N. J.; Gleason-Peters Air Pump Company, New York; Noera Manufacturing Company, Waterbury, Conn.; Frank Mossberg Company, Attleboro, Mass.; Veeder Manufacturing Company, Hartford, Conn.; Rose Manufacturing Company, Philadelphia; American Bicycle Company, Automobile Department, New York.

Mitchell Motor Bicycle Announced.

The Wisconsin Wheel Works, of Racine, have given another example of the aggressiveness and progressiveness that is making them more than ever a factor in the trade; They have just added a motor bicycle to their Mitchell line.

It will be strong, light and rapid, they say, and will make its appearance early in January. The Wisconsin people report that they have already in hand a satisfactory volume of orders for the new comer.

S. F. Heath, of the company, is now working his way East, and is due in this city late this week.

Laconia Wants Hoffman.

Laconia, N. H., has hopes of inducing the Hoffman Bicycle Co., of Cleveland, O., to remove its plant to Laconia. All that is needed to secure this industry is for the "business men of the city to join hands in an earnest manner" and bring the proper pressure to bear.

The Hoffman Co. is described as being about to engage in the automobile business in addition to that of bicycle manufacture.



The Best For His Money

The buyer is willing to pay a fair price for a bicycle which has shown up to him to be better than another at a lower price but he has to be satisfied of that fact. Here is where the dealer who has a bicycle which has the points about it to win the buyer has his opportunity—but he has got to show up the points.

Merit will win against price. It takes a little more time perhaps but the universal gain to the dealer comes later when one satisfied customer brings in another and his future time is spent in making sales instead of repairs. As one of our customers said awhile ago:

"One beauty of the National is that when it's sold it stays sold and I don't have to keep fussing over it to keep the owner satisfied."

There are a good many features on the National that make it distinctive—different from others—better than most.

National Cycle Mfg. Co., = = Bay City, Mich.

We Manufacture a Chainless Mechanism which Surpasses
any other in Cycle Construction.

It has more good points than it is possible to describe here. Request our catalogue to be sent you for full information.

Gears which run without the least purring or vibration.

Gears that have demonstrated the greatest efficiency.

Gears ADJUSTED THE SAME AS A BALL BEARING, and with no more difficulty.



Mechanism furnished so unnecessary for manufacturers to disturb.

All essential parts accessible and re-assembled **WITHOUT DISTURBING AN ADJUSTMENT.**

As easily taken apart and **PUT TOGETHER** as any chain wheel.

RIGGS-SPENCER CHAINLESS MECHANISM.

— We have a proposition of interest to every manufacturer,
It is no trouble for you to furnish our mechanism,

RIGGS-SPENCER COMPANY,
Rochester, N. Y., U. S. A.

THE BICYCLING WORLD

FOUNDED 1877
and MOTOCYCLE REVIEW

In which is Incorporated
"The Wheel" and the "American Cyclist."

Published Every Thursday

By

THE GOODMAN COMPANY,

123-125 Tribune Building.

(154 Nassau Street)

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TELEPHONE, 2652 JOHN.

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Invariably in Advance.

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Entered as second-class matter at the New York, N. Y., Post Office, September, 1900.

General Agents: The American News Co., New York City and its branches.

Change of advertisements is not guaranteed unless copy therefor is in hand on SATURDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, DECEMBER 13, 1900.

The Dealer's Awakening.

Among the straws that show the force and direction of the trade winds, the interest displayed by the retail trade in the journals devoted to the industry in which they are concerned is an indicator of no small significance.

Wherever there exists a desire for information, a desire to know "what's what" and "who's who," there is certain to exist what we term "live" interest—interest of the sort that argues for the good of the trade concerned.

In this connection we are in position to say that at no time during recent years has the retail cycle dealer displayed livelier interest in the publications devoted to the trade; this, at least, is the experience of the *Bicycling World*. At no time during the past three years has the volume of renewals or the number of new subscriptions been so large. It is one of the encouraging features of the business.

It means that those who remain realize that it pays to keep posted; that they real-

ize they can no longer depend on mere gossip or shop talk to keep themselves informed, and that they can no longer live within their own local confines. It serves to show also that dealers are awakening to a keener appreciation of the publication that deals only with the trade, and that is ever on the lookout for information and suggestion that will add most to their intelligence and welfare.

Signs of Motor Promise.

When concerns like the Leland & Faulconer Mfg. Co. interest themselves in and undertake the improvement and perfection of the gasoline motor, substantial results are more than likely; it brings considerably nearer the American motorcycle driven by an American motor, and with it come strong suggestions of a price that will go far toward popularizing the type of bicycle that levels the hill and stills the headwind.

Up to the present time most of the inventive genius of the world has merely taken the French motor and altered it here and "touched it up" there, the general result being an engine that, externally at least, appears but a slavish copy of the French model.

Leland & Faulconer have not made public their design, but, aside from the probable developments in that direction, the Foye-Bergmann motor, illustrated on another page, is an indication of original thought and breaking-away from French ideas that is rich in promise and suggestion.

Concentrate Your Energy.

With so many cycle dealers viewing the automobile trade with jealous eyes and with not a few of them having already formed automobile connections, there is ground for belief that some of them are apt to neglect their bicycle business for the vehicles that list at larger prices and bring larger profits when sold.

There is no desire on our part to appear an alarmist, but surface indications justify the statement made.

It is not for us to decry interest in automobiles, but, generally speaking, it is well that the cycle dealer should stick to his knitting, and not divide his effort and energy too greatly. The demand for automobiles is fully abreast of the supply, and until the trade in the self-propelled vehicles is more fully ripened it holds but a minimum of promise for the average bicycle agent. He will find it more profitable to throw all his

energy into the sale of bicycles and motorcycles. In themselves the latter hold far more promise than does the automobile.

It is not to the individual rider alone that the motorcycle appeals, but there is as certain to ensue a healthy demand on the part of the small storekeeper; as a parcel carrier, economical, ever ready for use, and conveniently stored or convertible at will into a pleasure tricycle or bicycle, "the butcher, the baker and the candlestick maker" cannot well fail to be interested. The proverbial millions are in this phase of the motorcycle.

How to Make a Beginning.

"What becomes of all the old cycles?" is a question frequently asked and seldom answered satisfactorily.

If the question is asked of the dealer he can throw light on the subject up to a certain point. But there comes a time when the old machines drop out of his sight, and he knows not where they go.

But while they remain within his ken they furnish him with ample data upon which to base an opinion of them. He buys and sells them until each is impressed on him with a distinctness as unpleasant as it is vivid. When he finally gets rid of it for all time he heaves a sigh of relief.

To the average dealer this trafficking in merchandise which enters into direct competition with the new machines which form the main part of his business is exceedingly distasteful.

He knows that each time he buys or sells one of these old "crops" he is standing in his own light. He first locks up money in it and then becomes his own competitor, and sells to a customer a profitless machine when he might have sold him a new one which would have yielded him a legitimate percentage. But this suicidal policy seldom commends itself to him.

His plea is that he can't help himself. To a certain extent this is true. The dealer is an accessory to the crime, and frequently he cannot help himself; but sometimes he can, and it is just these times that should be turned to account.

He will frequently take in trade a machine that has no value to any one, a machine so long past its period of usefulness that no actual loss would result if it were cast into the sea. Instead of making a stand in such a case, however, the dealer will make an allowance on it, solacing himself with the thought that it is a small one and he needs the sale of the new machine.

The matter is better regulated in other trades. The old, wornout sewing machines, typewriters, etc., are not permitted to cumber the earth for an indefinite period on the plea that they have a value for some one.

Instead they are taken to the shop or the factory and there destroyed. A few parts may be spared, but the major part of the machines is wrecked beyond any possibility of resurrection; and the wrecker pats himself on the back and considers that he has done a good deed.

The good that would be accomplished if some such plan were followed in the case of bicycles can be readily seen.

There would thus be one less bicycle in existence and one more customer for a new one—for a customer is always found for the old one—from the sale of which both maker and dealer would reap a benefit.

A beginning could be made with "crocks" of ancient lineage and wellnigh hopeless condition. In many cases they would cost almost as much to put in any decent kind of shape as they could be sold for.

The scrap heap is the eventual destination of such machines; why not anticipate this time a little and speed it on its way?

The Age of Comfort.

One of the remarkable features of the past season that has escaped comment is the splendid business that has been done in sundries.

We have talked with numerous jobbers and retailers—two of them as widely separated as Portland, Me., and Portland, Ore.—and with scarcely an exception they report that, while the sale of bicycles has diminished, the sale of sundries has shown a substantial increase; in fact, several of them stated that it was the best year in that regard that they had yet experienced.

The cause of this condition is difficult to determine satisfactorily. If it indicates anything it seems to indicate what we all now know to be a fact, that, generally speaking, riders no longer change their mounts each year, and are indulging in those sundries and accessories that are "cheaper to buy than to do without"; in short, it indicates that riders are now paying more attention to their comfort and convenience than heretofore.

The increasing interest in cushion frames and chainlesses, also points in that direction, all of which points to a moral which makers and dealers may well take to heart and make the most of.

Both Will be Used.

It is natural to suppose that motorcycles will, in the course of time, to a very large extent take the place of the present cycle.

To the ranks of cyclists must the motorcycle look for its recruits. The affinity between the two machines is such that the passage from one to the other is a graduation, not a change. The affixing of a motor does not materially alter the character of the cycle; it merely enables the rider to substitute another means of propulsion for the one he has been accustomed to use.

The interesting question is, What proportion of cyclists will become motocyclists, and will they forsake the cycle entirely in their enthusiasm for the newer machine?

So many as yet undetermined considerations are involved that an accurate forecast is quite out of the question at this time. Many cyclists will want motorcycles who will not get them; questions of cost, of handling, of reliability, etc., will bring about this result.

Nor is it at all certain that even those who take up the motorcycle will cast the cycle aside. It is not pedalling itself that is distasteful to a certain number of riders, but rather too much of it. Relief from it may be desired, but it is very doubtful whether the utter lack of it would not be quite as distasteful to some riders as the excess which they sometimes complain of.

For these reasons it is quite evident that no success of the motorcycle can seriously shake the hold of the cycle. The latter will continue to be both popular and useful even should the hopes entertained of the motor machine be fully realized.

Shorter Wheel Bases Tried.

Several makers are bringing out machines for next season having a shorter distance between the crank and rear axles than is customary.

This is interesting as being the first effort to shorten the wheel base that has materialized for a good many years. Designers have accepted, almost without question, the long base, and it has become thoroughly standard in consequence.

It has its merits and demerits. When the need of a greater distance between the wheels first became plain—about 1894 or 1895—the most natural way to obtain it was to lengthen the chain stays. As they were at the same time materially strengthened, this being the time when larger tubing came in, no injurious results were felt.

It is an open question whether they can

be advantageously shortened. The advantages of a closer building of the frame at these points will be obtained, of course; but unless the distance between the crank and front axles is increased to compensate for this the admitted superiority of the long base will be lost, and it is very doubtful whether the greater rigidity obtained in the chain stays will compensate for it.

However, the use of the machines with the shortened base will soon show whether a forward or a backward step is being taken by the makers in question. Until that is demonstrated it is well to withhold judgment.

Sundries Were Strong.

One of the anomalies of the past season has been the trade in sundries.

From the makers and jobbers of these goods have come nothing but complaints of poor business. In fact, it is almost within bounds to say that the "slump" in sundries has been greater than that in new machines.

Along with these reduced sales—or, rather, in advance of them—has come a steady and marked decline in prices. Heightened competition has added to the unpleasantness of the situation.

But if we turn to the dealers, or to a very large number of them, an altogether different state of affairs is found.

The business is described as having been all the way from good to superlative. Few dealers—save those plainly afflicted with dry rot—have experienced a poor sundry trade.

Those having had an excellent season are not confined to any particular section of the country. From Maine to California dealers tell the same tale, frequently admitting surprise as they do so.

Not the least gratifying part of the matter is the fact that the business has in nearly all cases been a profitable one.

The goods have been bought at rock bottom and retailed at an advance comparatively slight in amount, but gratifyingly large if reckoned by percentage.

It is plain, therefore, that the demand is still sufficiently large to absorb all the sundries that should be manufactured in the present condition of the trade. The prices obtainable by the makers and jobbers are, on the other hand, not high enough to warrant reckless production. Indeed, the lessons of the past should prevent anything of the kind being indulged in.

In short, it is evident that as long as riding is indulged in there will be a demand for sundries. At the right prices and properly pushed, there will be no particular trouble in getting them into the hands of the public.

MARVELOUS MOTOR

Radical Departure from Existing Models
Which Works Well in Practice—Its
Far-reaching Uses.

The whole world is awaiting the appearance of the perfect motor, or, failing that, an improved motor that will give results unobtainable by any now in use.

This is the problem. On it men of brains, possessed of mechanical knowledge, are at work, bringing to the task ingenuity of the highest order. Behind them is money almost limitless in amount, awaiting the fortunate inventor who shall come nearest to attaining the desired end.

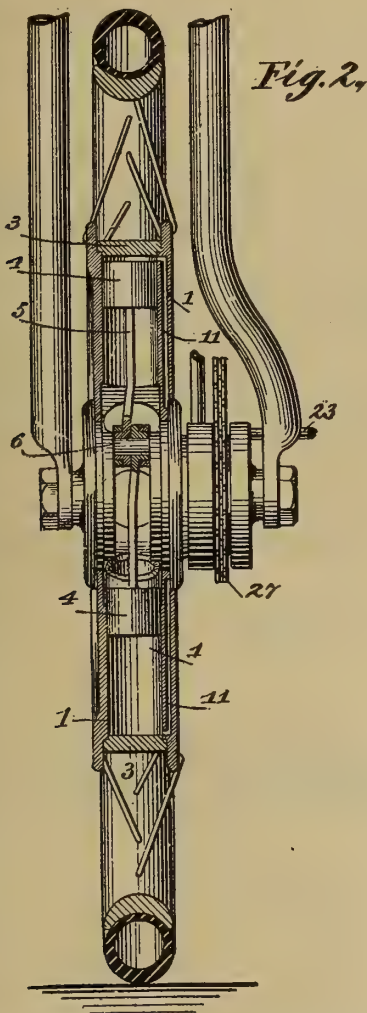


Fig. 2.

road the work performed in the shop for the benefit of the Bicycling World representative, it will revolutionize the motor industry and cut no small figure in the machinery field; for it is equally applicable to lathes, drills and other machine shop appliances, and, indeed, many other fields where power is now applied, in a much less economical manner.

To realize this fact it is only necessary to refer to its peculiar features. The motor is a hub motor in fact as well as in name; it forms the hub of the wheel, and when the power is applied it revolves and causes the remainder of the wheel to revolve with it. There is no gearing of any sort through which the power must be communicated, but every particle of effort is directed to the turning of the wheel. The economy of this method of application will readily be seen.

For the driving of this motor either steam or gasolene may be used; for cycles the latter possesses advantages, while for carriages, trucks, etc., steam is preferable; kerosene is a third power that is being experimented with, decided progress having been made in this direction.

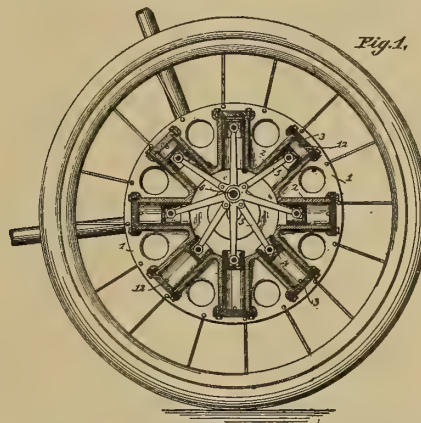


Fig. 1.

As many motors or wheels may be used as is deemed necessary. With a bicycle only one would be required, with a tricycle two, with heavy vehicles four could be used. In Bergmann's experimental machine, a tricycle, only one was used—incased in the rear wheel on the left hand side. The motor used was 10½ inches in diameter and 2¼ inches wide, weighing 20 pounds. With this the tricycle, carrying two men, was driven over all kinds of roads, and during its three months' existence it never failed to answer every call made on it.

For a bicycle a smaller and lighter motor will be used. It will be very compact, measuring but a trifle over four inches at the axle nuts, or but little more than the ordinary bicycle rear wheel. Within this compass will be the motor proper; the gasolene tank, carburetor, sparking device, etc., will be very much of the usual type, except that the inventor has devised ways of considerably simplifying the former.

For example, the motor or engine could be operated entirely by the pedals. A forward push would start the motor, a backward one reverse it or, in the case of a bicycle, stop it.

If an explosion engine were used, as is

recommended for cycles, all danger of heated cylinders or explosion chambers would be obviated. Both would be provided with air cooling flanges, but as there would be six cylinders at work instead of one, as in the ordinary motor, any excessive heating is entirely out of the question. No separate movement is required to compress the gas mixture, as, while one cylinder is exploding, another one is compressing.

The inventor has a motor built up in a wheel in operation at his shop. With this motor he obtained, for the Bicycling World man's benefit, startling results. It is run by steam obtained from an ordinary engine boiler, the two being connected by a pipe. By moving the lever forward steam is introduced in the intake porthole, as subsequently described, and the wheel moves forward; a reverse movement of the lever starts the wheel to running in the opposite direction.

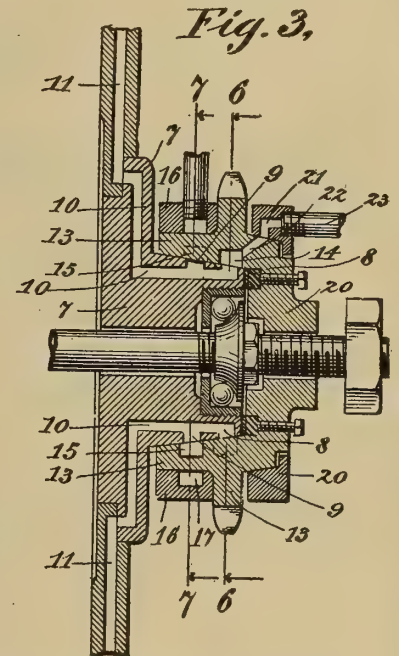


Fig. 3.

while if it is brought to a perpendicular position the wheel stops instantly.

These movements can be made with the utmost rapidity, and the lever and wheel move simultaneously; there is not the slightest noise or hesitation about it. Just as fast as the lever can be moved in any direction the wheel follows it. Brought to a standstill and a board pressed against the rim with a man's full strength, the wheel still responds almost as quickly to a forward movement of the lever.

Five patents have been taken out on the motor, and three more are pending. In one of the former the construction and working of the motor is set forth thus:

"This invention is an improvement in fluid pressure motors and relates especially to motors employed for propelling motor vehicles and operated by steam, air or other expansive gas, and the improvement consists in the constructions and combinations recited in the claims herein.

"In the accompanying drawings, forming part of this specification, Fig. 1 is a side ele-

(Continued on page 246.)

Among the entries in the race for this grand prize is the Foye Hub Motor & Automobile Co., of Jersey City, N. J., whose motor, the invention of Carl F. Bergmann, was noticed in last week's Bicycling World. The concern was recently incorporated under the laws of New Jersey, with an authorized capital of \$200,000, for the purpose of exploiting the motor referred to.

It may be stated at the outset that if the Bergmann motor, which is termed a "fluid pressure motor," does all that is claimed for it, and duplicates in actual tests on the

\$4,000 CASH PRIZES

IF IT'S TO BE PRIZES

THEN LET IT BE PRIZES

CASH PRIZES

And a Fair Chance For All Dealers WHOLESALE AND RETAIL

We want it always understood that we shall meet or "go one better" any and every unusual inducement offered to the bicycle trade.

Therefore take notice for 1901 we offer to
the **JOBBERs** handling

20th Century Headlights

Oil-Gas for Bicycles and Automobiles

(Either or all three together—Each lamp counting as one)

\$1550 CASH DIVIDED AS FOLLOWS:

To Jobber handling greatest number,	\$500	To jobber handling 4th greatest number,	\$200
" " " 2d greatest number,	400	" " " 5th " "	100
" " " 3d " "	300	" " " 6th " "	50

These figures will show on the books of the 20th Century Mfg. Co., and will be verified by S. A. Miles, Esq., President Cycle Age Publishing Co., of Chicago, Ills.

SEE OPPOSITE PAGE FOR PRIZES TO RETAIL TRADE.

\$4,000 PRIZES

Continued from
opposite page.

TO RETAIL DEALERS

\$2450 CASH.

So as to "even up" the chances of all in the fairest manner possible, we divide the prizes into four classes, as follows:

Class A. \$875 CASH.

Irrespective of population—To the retail dealer sending in the largest number of coupons, \$500 CASH; second largest number, \$250 CASH; third largest number, \$125 CASH.

Class B. \$700 CASH.

Cities of over 100,000 and under 900,000—The retail dealer sending the greatest number of coupons in proportion to population, \$400 CASH; second largest, \$200; third largest, \$100 CASH.

Class C. \$525 CASH.

Towns of over 10,000 and under 100,000 population—The retail dealer sending in the largest number of coupons in proportion to the population, \$300 CASH; second largest number, \$150; third largest number, \$75 CASH.

Class D. \$350 CASH.

Towns of over 1,000 and under 10,000 population—The retail dealer sending in the greatest number of coupons in proportion to the population, \$200 CASH; second largest number, \$100 CASH; third largest number, \$50 CASH.

Population as shown in 1900 census.

AWARDING OF PRIZES.

A coupon will be placed in each 20th CENTURY LAMP box, which the dealers will take out before they sell the lamp. Preserve these coupons, and on September 1st mail them (registered letter, name and address plainly stated), to the Cycle Age Co., 324 Dearborn St., Chicago, by whom they will be carefully counted, and the awards made before October 1st, 1901.

One dealer cannot win more than one prize. In case the coupons sent in win in either of the other classes and also in open Class A, the owner will be awarded the largest prize, and the other prize will go to the dealer sending in the next largest number of coupons.

Be sure each lamp box you receive from your jobbers contains one of these coupons, as extra coupons cannot be supplied under any circumstances.

The above valuable money prizes are not offered with a view of forcing the already very large and healthily-increasing sales of the 20th CENTURY Oil and Gas Bicycle Headlights, but as a matter of business protection, and will be won by the dealers in the regular course of their business, causing them no extra trouble, simply carrying in stock "20th CENTURIES" to supply the demand for them.

Respectfully yours,

20th Century Mfg Co

Marvelous Motor.

(Continued from page 243.)

vation of the motor, partly in section, in position in the centre of the motor wheel. Fig. 2 is a vertical sectional elevation of Fig. 1 through the centres of the cylinders. Fig. 3 is a sectional side elevation of the mechanism by which the motive power is introduced into and exhausted from the cylinders.

"The drawings show an engine embodying my invention in the forms at present preferred by me as applied to the wheel of a bicycle or other vehicle, but it will be understood that various modifications and changes may be adopted without departing from the spirit of my invention, and without exceeding the scope of the concluding claims.

"In the construction shown, 1 is a circular casting, or disk, mounted on the axle of the vehicle, so as to revolve thereon, to the outer edge of which are attached the spokes of the wheel.

"Fig. 2 represents cylinders arranged radially within the disk, having their outer ends closed by the headings 3 and open at their inner ends. These cylinders are preferably bored out from the material of the disk, but may be constructed in any other suitable manner. In the cylinders are pistons, 4, to which are attached piston rods, 5. The outer ends of these piston rods are secured by suitable connections to a stationary pin, 6, situated eccentrically with respect to the axle of the motor or on one side of the latter, and corresponding to the crank pin of the ordinary motor.

"The pistons are thus held substantially stationary with respect to the axle, but as this pin is situated eccentrically of the axle, the effect of the motive agent in the cylinder is to cause the latter to reciprocate with respect to the piston or cylinder head to slide away from and toward the piston, and thus to cause the cylinders to revolve about the axle.

"The motive agent is introduced into and exhausted from the cylinders by the mechanism shown in Fig. 3, containing the intake and exhaust ports and channels.

"The operation of the mechanism is as follows: Supposing the several parts are in the position shown in Fig. 3, the motive agent employed passes through the inlet pipe, 23, and thence through the channels 21 and 22 into the groove 14 in the ring 13 and from thence enters the several intake ports 8, communicating with it, and passing along the channels 10 in the cone leading from these ports enters the channels 11 in the several cylinders and by means of the latter passes into the outer end of the cylinders on the one side of the motor. At the same time the exhaust from the cylinders on the opposite side of the motor passes through the channels 11, connected with such cylinders, and through the channels 10 on the opposite side of the cone and enters the groove 15 in the ring 13. From thence the exhaust passes, by means of the opening 18, into the circular groove 17 in the ring 16 and escapes through the outlet pipe 19. As the motive agent is thus entering the cylinder on one side of the motor through the intake ports on one side of the cone it is passing out of the cylinders on the other side of the motor through the exhaust ports on the opposite side of the cone. The cylinders thus receive the motive agent and exhaust the same on one side of the motor and by means of a single mechanism and

through a single channel or port in the cylinder.

By reference to Fig. 1 it will be seen that when the motive agent enters those cylinders in which the piston is at or near the cylinder head, as the piston is connected by the piston rod with the stationary pin 6, and therefore cannot move, the force of the motive agent tends to slide the cylinder head away from the piston, thereby causing the motor to which the cylinder is attached to revolve on the axle on which it is mounted. As the motor revolves the cylinders are successively brought into communication with the intake ports in the cone and receive the motive agent and afterward with the outlet ports and exhaust the same. To reverse the direction of the motor, the ring 13 is revolved on the cone half way around by means of the sprocket chain 27, which engages with the teeth 28 on the rim of the ring or by any other suitable mechanism whereby the intake ports are brought into communication with the cylinders on the other side of the motor, and the latter is caused to revolve in the opposite direction.

Stanley and National Compared.

The English Stanley shows have been held in unbroken succession from 1878 to and including the present year, twenty-four shows in all. Beginning with a modest total of seventy-four machines at the first exhibition, high water mark was reached in 1896, when 2,028 cycles of various kinds were on view. Since then there has been a steady diminution.

It was not until 1893 that the National shows made their bow. In that year the more influential makers, having found that their abstention from the Stanley had not interfered materially with its prosperity, decided to fight shows by starting one of their own. Each year since then they have followed suit, although sorely against the wishes of many makers. Efforts made to secure the withdrawal of both show associations, as well as to bring about a consolidation for the purpose of lopping off at least one of them, have been equally unsuccessful.

With the National Show also 1896 was the biggest year, no less than 2,306 machines having been exhibited at the Crystal Palace.

Low Rates to the South.

Excursion tickets at reduced rates are now being sold by the Chicago, Milwaukee & St. Paul Railway to the prominent resorts in the South, including Jacksonville, Fla., Mobile, Ala., New Orleans, La., Savannah, Ga., El Paso, Tex., which are good for return passage at any time prior to June 1st, 1901. Information regarding rates, routes, time, etc., can be obtained on application to any coupon ticket agent of the Chicago, Milwaukee & St. Paul Railway. ***

Westfield is Busy.

Considerable additions are being made to the force at the Westfield (Mass.) plant of the American Bicycle Co., and it is expected that within a few weeks fully five hundred hands will be at work.

Silver Plate Galore.

Some idea of the length gone by English makers in their endeavor to demonstrate that their highest-priced models are worth the fancy figures asked for them is to be found in the announcement of a "Modele Superbe" brought out by one concern for next season. In this machine all the "bright parts" except the rims, which are nickelled, are heavily silver plated. This lavishly decorated machine sells for the mere trifle of \$125, at which figure even a little gold plating might have been indulged in.

This machine calls to mind that a few years ago an American maker dwelt with fond emphasis on the assertion that his machines had gold-plated cranks. The plating was not very thick, however, and to that fact may have been due the exceedingly moderate price asked for the machine—a price in marked contrast to that of the English wheel referred to.

Substitutes for Sea Island Cotton.

Although the crop of Sea Island cotton was unusually large last year, amounting to 97,555 bales, as against 67,204 bales the year before, the prices obtained for it more than kept pace with the increase. The average price per bale was \$61.86, while the previous season's figures were \$54.70.

The drop in tire prices has undoubtedly led to the use of cheaper materials than Sea Island cotton for fabrics by some makers. Egyptian cotton makes a pretty good substitute, but there have been cases where the common upland cotton has been employed for the purpose. With higher prices for Sea Island ruling, a more extended use of the cheaper grades is probable.

Like Liquid Brazing.

Liquid brazing appears to be gaining ground in the British trade. The Raleigh Cycle Co. is one of the latest concerns to adopt it, and by its method the cleaning up of the joint after brazing is practically done away with, so that the fear of thin tubes being reduced is also a thing of the past.

Rarely Forthcoming.

The call for changes and "talking points" is becoming very pronounced in British trade circles; yet, in spite of this—or because of it—they are rarely put forth.

Cole and Graham Part Company.

The relations between the G. W. Cole Co. and John H. Graham & Co. have been discontinued. The Graham people were formerly general sales agents for the Cole goods.

Dates for French Show.

The French cycle show has been set for Jan. 21-Feb. 10. It will occur in Paris, of course, and in the Grand Palais des Champs-Élysées, the use of which has been given by the Minister of Public Instruction.

CHAINLESS DRAWBACKS

Some of the Things that have Affected the Sale of Bevel Gears.

Among the trade visitors in New York last week was Henry M. Leland, general manager of the Leland & Faulconer Mfg. Co., of Detroit. He has just completed a tour of the trade in the interest of L. & F. bevel gears and fittings, and was feeling pleased at the results. More manufacturers than ever before will make chainless during 1901, and in natural sequence more dealers will sell them.

Mr. Leland remarked what had been remarked before, that much of the seeming backwardness of the chainless was due to the unwarranted damning it received from makers who damned it because they did not see fit to manufacture it, and to their travelling salesmen who "passed the word" along the line.

"When I have had an hour or two to spare before train time," said Mr. Leland, "I have frequently dropped into bicycle stores and talked with the dealers. They did not know me, and in consequence I have been able to learn just what arguments they bring to bear against the bevel gear.

"Not all of the backwardness has been due to this cause, however," continued Mr. Leland. "Some of it is due to the use of other than our gears, which are warped in hardening; ours are the only ones corrected after hardening. Other trouble has been caused by the indifferent or incorrect mounting and adjusting of the gears; these are most important details, and cannot be lightly treated if the best results are desired. It was this fact that induced us to manufacture not only the gears, but the fittings as well. With these fittings the likelihood of improper mounting is reduced to a minimum, but too much care cannot be given to the adjustment."

In this connection Mr. Leland paid a high compliment to the Geo. N. Pierce Co. The Pierce people, he said, had reduced the mounting and adjusting of the gears to an exact science.

Mr. Leland also remarked his faith in the trade papers as mediums for exerting influence for good on the chainless movement and other movements of the sort.

Speaking of the so-called "decline of cycling," he thought it was taken too seriously.

"There was no occasion for the disappointment that has been expressed," he said. "The fact that the fashionables abandoned cycling was given too much weight. Bicycles will be made and sold and ridden so long as human beings have legs and desire to move them, and when more of them appreciate the beauties of the bevel gear and long cranks—yes, I believe in them, and you can use longer cranks and higher gears with the bevel gear than with the chain

gear—more of them will be riding chainless bicycles; this appreciation has grown with the years, and will spread mightily during 1901."

Double Tube Development.

There is no doubt but that the double-tube tire is due for an inning such as it has not had for several years.

While the story has been circulating throughout the trade that several makers were bringing out double tubes which were to act merely as decoys or "stalking horses" for the single tube, it is certain that the Diamond Rubber Co., of Akron, Ohio, is doing nothing of the sort in the exploitation of their new Waldorf-Astoria and "1920" tire. They are throwing all their wealth and energy into it, and in a manner that can hardly fail of effect.



The tire was first described in the *Bicycling World* two weeks ago; its inner tube, here shown, is its feature, and one so original as to excite general remark.

Heretofore practically all double tube, cemented-to-the-rim tires have been made with butt-ended inner tubes, following the example of the inventors and patentees of this style of tube, Morgan & Wright. The utility of this method of construction is obvious; the ends being sealed and yet unconnected, facility was afforded for the removal or replacement of the tube. By comparison tubes joined in the centre, like tubes for detachable tires, and then cemented, were awkward and extremely difficult of manipulation.

The Diamond tube is joined in the centre, but instead of being cemented it has what may be termed a mechanical joint. A rubber cylinder sufficiently thick to preserve its shape, even under considerable stress, is inserted in the two ends of the tube, the latter being then fitted over it. On the outside of this cylinder are two depressions running all the way around it, shaped so as to take two rubber bands.

These bands are slipped over the two ends of the tube, after the latter have been fitted over the rubber cylinder. By making them smaller than the cylinder sufficient compression is obtained to make the joint airtight; the bands once in place, the job is completed.

At first sight the ability of such a joint to retain air seems more than doubtful, but the Diamond people say that a year's use has demonstrated its thorough practicability, an assertion which the *Bicycling World* has heard substantiated by competitors of the Diamond company.

MODERN ALADDINISM

Not Exactly New Lamps for Old, but Something Almost Akin to it.

To put it mildly, the situation in the lamp market is uncommonly interesting. It is a situation that makes for the profit of the jobber and the dealer, but the real feelings of the manufacturers are easier imagined than described.

The Badger Brass Mfg. Co. started the furor when it offered prizes to the dealers selling the greatest number of Solar lamps during the 1901 season. It created a wave of comment, of course; in fact, it did more than this; it aroused the 20th Century Mfg. Co. to action, and the action took shape this week in the form of the most stupendous prize offering that the trade has ever known—an offer of \$4,000 in cash prizes, the money being so distributed that not only the retailer but the jobber can share the plums that are hung up.

Of the \$4,000 \$1,550 is set aside for the jobber, the amount being parcelled as follows: To the jobbers handling the greatest number of 20th Century lamps, either oil or gas, \$500, \$400, \$300, \$200, \$100 and \$50, respectively.

The remaining \$2,450 is hung on the retailers' tree. It is divided into four classes, as follows:

Class A, \$875 cash, irrespective of population—To the retail dealer sending in the largest number of coupons, \$500; second largest number, \$250; third largest number, \$125.

Class B, \$700 cash—Cities of over 100,000 and under 900,000—To the retail dealer sending the greatest number of coupons in proportion to population, \$400; second largest, \$200; third largest, \$100.

Class C, \$525 cash—Towns of over 10,000 and under 100,000 population—To the retail dealer sending in the largest number of coupons in proportion to population, \$300; second largest number, \$150; third largest number, \$75.

Class D, \$350 cash—Towns of over 1,000 and under 10,000 population—To the retail dealer sending in the greatest number of coupons in proportion to population, \$200; second largest number, \$100; third largest number, \$50.

The 1900 census will govern, and the competition will close on September 30; the coupons are contained in each box, and must be taken out by the dealer before the lamp is sold.

One dealer cannot win more than one prize. In case the coupons sent in win in either of the other classes and also in open Class A the owner will be awarded the largest prize, and the other prize will go to the dealer sending in the next largest number of coupons.

The 20th Century people say that they offer the prizes "not with a view of forcing the already very large and healthily growing sales of the Twentieth Century headlights, but as a matter of business protection."

THE GERMAN SLUMP

Figures that Show its Wide Extent—But the Situation is Clearing.

In the downfall which now affects all industrial values, the shares of the bicycle companies have suffered an exceptional shrinkage, says the International Volkswirst, of Berlin.

The Berlin quotations report the following decreases in value:

Companies.	Capital stock. Marks.	Subscription price.	Highest quotation.	Quotation a year ago.	Quotation on Sept. 25, 1900.
Hengstenberg & Co.....	1,250,000	146	195	110	76
Fahrzeugfabrik Eisenach.....	3,700,000	175	258	206	131
Kronprinz	1,400,000	230	240	230	160
Stoewer, Stettin	2,500,000	150	240	141	93
Hercules, Nuremberg	1,000,000	185	190	151	124
Victoria-Fahrrad	1,600,000	160	259	93	54
Weyersberg Kirschbaum.....	2,500,000	165	204	112	65

From this table it is apparent that the houses which issued the stock established a nominal par value of 13,500,000 marks (\$3,213,000), and demanded not less than 23,803,000 marks (\$5,665,114), or about 170 per cent, for the stocks. Speculation drove the shares to such a height that they represented a value of 30,500,000 marks (\$7,259,000). In an interval of less than a year, a depreciation of 2,500,000 marks (\$595,000) has taken place as compared with the price of issue, and of 9,500,000 marks (\$2,261,000) as compared with the maximum course on the exchange; so that now the original subscribers have suffered a loss of 10,000,000 marks (\$2,380,000) and the purchasers at the highest course a loss of 20,000,000 marks (\$4,760,000). The shares of the Victoria Bicycle Works, at Nuremberg, fell the lowest. This company was founded at the end of November, 1895, with a capital of 1,250,000 marks (\$297,500), and immediately the subscription price rose 160 per cent. In 1895-'96, there were distributed dividends of 15 and 17 per cent. At the end of July, 1897, new stock to the amount of 350,000 marks (\$83,300), was created and offered to the old shareholders at 190 per cent. In 1897-'98 the dividend was reduced to 10 per cent. The year 1898-'99 closed with a loss of 90,000 marks (\$21,420), and the present business year will close with a greater loss. Out of the above table, it is not only apparent that 159 per cent has been lost, but that the capital has been reduced one-half.

What is true of the bicycle manufacturers in Berlin is also true of the establishments in the provinces and of private enterprises. The industry suffers from enormous overproduction and an overstocked home market, with few opportunities for export, unusual expenses for display (such as advertising, bicycle tracks, and racing establishments), and tremendous commissions.

"In my consular district," says Consul T. J. Albert, in transmitting this report to the State Department, "the retail trade this year has been as unfavorable as last.

While in 1897 the situation was very good and the prices well maintained (with an average price of 300 marks, or \$71.40, for a wheel), in the beginning of 1898 the overproduction, especially from America, made itself felt, and the prices yielded considerably, so that the average cost of a wheel was reduced to 225 marks (\$53.50). The following year (1899) the best factories found themselves compelled to make a cheap wheel, which costs 150 marks (\$35.70), and this has continued during the present season. However, as a number of factories have gone into

liquidation or limited their output, and some have undertaken the manufacture of other kinds of machines, the situation has improved. Indications of a healthier condition in trade may be found in the fact that the larger manufactories have raised the prices for their cheaper products, with a prospect for a further advance."

Keeping the Dirt Outside.

Neglected chains, especially when used under all conditions of road and weather, have always given trouble, and not infrequently have almost refused to work at all. A good cleansing and lubrication are about the only things that will bring them around to somewhere near their normal condition.

Interesting particulars of the working of the chains on the English machines used in South Africa during the Boer war are being furnished by one of the officers of the cycling contingent. He says that the chains were often under water and then ridden through sandy drifts and practically in use day and night. They were treated about twice during the period in the following manner:

The chains were completely removed from the machines, washed out in spirit, such as benzoline, and then practically boiled in the stiffest lubricant which could be found—such as beeswax or mutton suet. The chain was worked about in this so as to introduce the lubricant right into every crack and working part. The men were forbidden to oil the chains under any circumstances. The effect was that, although smothered in sand and dirt, the chains were quite clean, and no dirt could introduce itself into the working parts. The dirt remained outside the roller, and crushed itself between the roller and the teeth, but this did not prove in any way detrimental to either chain wheel or chain.

"Sold as low as single tube tires and will give better satisfaction," is the war cry that the Diamond people have adopted in heralding their new double tube tire.

MUST CONTINUE IMPROVING

High Grade Makers Cannot Afford to Stand Still Now.

Machines are nearly all cast in one mould, and have been for quite a number of years. It not unnaturally follows, therefore, that the higher priced machines have been going begging, and the question is being asked whether there is still a field for them. Thus the Cycle Trader says:

"The real question is, Does it, and will it, pay any manufacturer to produce a really first-class machine at present prices, or to meet the present demand for such machines? For, although we admit it is still possible for a machine to be retailed at something near £20 retail, and still be value for money, there is the ever-present fact that machines as good as needs be for all ordinary purposes are to-day purchasable for just half the money.

"Now, the educated cycle-buying public—and it is educated nowadays—is apt to ask pertinent questions as to where the difference comes in. And it is just this one question that is likely to take an immensity of answering in the immediate future, for, granted that there is a small minority of buyers who will willingly pay the top price to secure the best of everything, this minority is gradually but surely growing less, and not without reason, for when we come to critically examine design, then material and workmanship, and afterward compare actual results, we find that whereas the highest class of machine has remained nearly stationary in the matter of workmanship, design and price, the lower priced machines have for two or three seasons been gradually improved in all these respects, until now, to the initiated, there is little to choose between the two; a finer degree of finish, a trifling gain in weight, and some elaboration in detail, perhaps, but beyond this little can be claimed, and certainly not enough to warrant the maintenance of fancy prices.

"The question raised is particularly interesting on the eve of the shows, for, in the first place, if the makers of higher grade or higher priced machines have nothing new to offer in the way of constructional detail or design, the manufacturers of the more moderate priced machines are sure to come nearer than ever in the matter of specification.

"Indeed, the present trend of things, having in view the fixity of pattern throughout, is all in favor of the middle and lower priced mounts, for in this case the makers have a copy to work from, and a higher design to emulate, and it is natural commercial instinct which prompts a firm to offer to the world a machine at ten guineas, which embodies or appears to embody all the refinements in detail, with general outline and design formerly associated only with the twenty guinea article."

In the days when there was a broad line of demarcation between the different grades of machines, and particularly between the highest and the lowest, the points of difference were so plain that the merest tyro could distinguish them.

The manufacturer of high grades was constantly on the alert to improve and change his machines. The latter were not only of a better quality than the cheap ones, but were also kept immeasurably in advance in the matter of design. This step was forced upon their maker; he could not afford to allow the cheap machine to catch up, for the instant it did it would enter into competition with its rival.

This is just what did happen eventually, and to that fact did the cheap cycle owe its subsequent popularity. Improved quality followed improved design, quite as a matter of course, and then there was little to choose between the best of the so-called cheap machines and the high grades. Since then the two classes have moved pretty much in the same groove, and the difference—either in quality, design or price—has not been very great.

On the other side of the water, however, the attempt to keep alive the wide distinction between the grades is still made. The difficulty of doing so is very much increased by the slavish way in which designers follow the fashion, as well as the unchanging character of this same fashion.

Ships Lamps on Approval.

Makers of house and store lamps are giving every evidence of their desire to interest the trade in their goods, with the object of having the dealers stock them as side lines. Such arrangements undoubtedly accrue to their mutual benefit, and are to be commended for that reason alone.

Among the concerns making attractive offers of this kind are Martin & Morehead, 51-57 W. Washington street, Chicago. Their M. & M. Arc Lamp is the original of this style of vapor lamp and has had the advantage of two years of practical commercial service to demonstrate its feasibility. A significant feature of this lamp is the fact that it is readily passed by fire underwriters throughout the country, which is ample proof of its safety, while the fact that the makers are willing to ship a lamp on approval is evidence of faith that is not to be gainsaid.

The Solitary Survivor.

Of the score of puncture proof tires that the trade has known during the past six or eight years it is a remarkable and effective testimony to the Milwaukee tire that of all of them it alone remains.

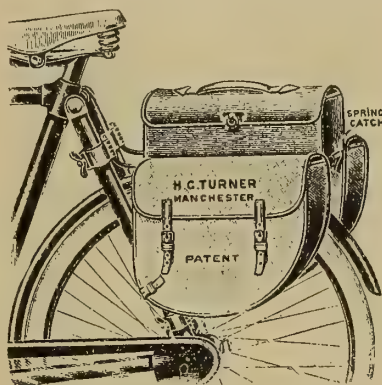
Its makers, the Milwaukee Patent Puncture Proof Co., have worked on careful lines and the fact that their business has never taken on the character of a boom is evidence of its substantial and enduring nature.

Even in their advertisements it has been their policy to let others do the talking and the letters they have produced, and are able to produce speak for themselves in a manner that does not admit of doubt. Two of them are printed in their ad. in this issue,

MOTOR MATTERS

What They are Saying and Doing in England on the Subject.

London, Nov. 21.—It is proposed by a writer in one of the outside papers running a motor column that in view of the controversy regarding the pros and cons of water and air cooled motors a return should be made to the smaller engines, say, those of about 1½ h. p., and that two of these should be employed upon motor tricycles in place of the one larger motor now generally adopted. It is pointed out with some truth that these small motors are not so liable to heat, and that in their case air cooling has been found efficient. But, after all, I do not see that the adding of a water-jacket is a great matter, or that it causes any more trouble to the rider beyond that entailed by occasional refilling. On the other hand, two motors are not always better than one, because, apart from the consideration of the increased cost which such a method of construction would



SADDLE-BAG IDEA FROM ABROAD.

entail, it must be borne in mind that there are just double the number of working parts liable to get out of order. It is quite enough for the unmechanical to have to look after and keep in order one set of valves, without doubling their work in this direction, to say nothing of the fact that with a double motor it is not always easy to detect which cylinder is failing to give its proper power. Moreover, a motor of 2¼ h. p. is plenty large enough, especially if the machine be not geared too highly. The average public do not want road speeds exceeding twenty miles an hour, so that in the case of a tricycle the 2¼ h. p. air-cooled motor is powerful enough for ordinary uses.

The disparity in prices which is now apparent between different agents and retailers selling the same parts and complete motors turned out by the same factories is causing a good deal of comment. I recently referred to a cutting line in De Dion motors, and as the public have found out that the cost need not be so high as the larger houses and agents maintain is necessary, so the trade is falling slightly. But in the end, and always providing that these same motors are of good quality, the introduction of the

cheap motorcycle, so long as it be efficient, will be a blessing and will do much to increase the popular interest in this class of machine. Unless the shows, which open on Friday next, produce something very startling, which is hardly likely, it is quite clear that the pattern of motor for next year is fixed, and that it is in procuring large sales and in consequently cheapening the cost of production that advances may be expected.

Where any deviation from the ordinary De Dion pattern is made the alteration usually consists in placing the cylinder in a horizontal position, but where the gain comes in it is hard to see. It would appear that the tendency to wear oval, owing to the weight of the piston itself, is greatly enhanced, and this was pretty well proved in the case of the Bollee, in spite of the fact that in that motor the effective stroke was below the crank-shaft and not above it, an arrangement which to a certain extent reduced the wear on the cylinder, as the piston was pressed upward against the upper portion during the effective stroke. But even then a certain amount of oval wear was set up, which caused a great deal of trouble. Why, then, is it thought that the horizontal cylinders should be better upon the ordinary pattern of tricycles and quads than they were upon the Bollee, which was one of the lightest of the voitures?

I recently called upon a well-known firm of electrical engineers who have been advertising wet accumulators designed to fit within the case supplied with most motorcycles to hold the ordinary dry batteries commonly employed. They tell me that they have sold a considerable number of these accumulator sets, and that they are giving great satisfaction. No doubt they are more powerful than dry cells, but I am a little surprised to hear that they have met with a fairly large sale, because there is the recharging trouble, which in this country is a constant source of annoyance. The vibration to which a motorcycle is exposed also seems to me to be a factor much against wet accumulators, no matter how well they may be constructed. Moreover, dry batteries do not as a rule give trouble, and if carefully watched to see when the current is getting dangerously low they are reliable. The cost of renewing is rather high, but I doubt very much if it would amount to more than that involved in keeping wet accumulators in order, for this item is a pretty heavy one with cars, and is likely to be even more so on motorcycles, on account of the shaking to which the plates are exposed.

Suspension Saddles in Favor.

There is no longer doubt that the trade pendulum is swinging back in the direction of suspension saddles, and that those types are regaining a considerable degree of the favor which they enjoyed in the old days. Excellent proof of the fact is produced by the Persons Mfg. Co., of Worcester, Mass., who report that on December 1 they had more orders in hand than were sold during all of last season.

NOT TO KNOW THEM

is to confess oneself lacking in information.

BURNS GAS



GAS



OIL

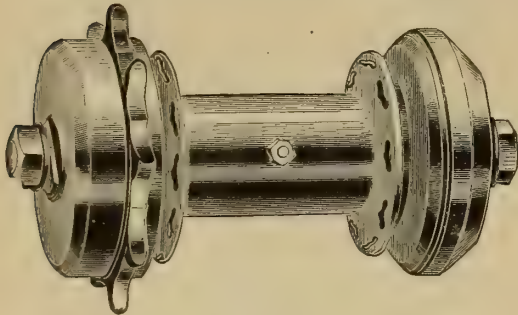
NOT TO SELL THEM

is to prove the dealer lacking in the "shopkeeping instinct" and in the desire to offer the purchaser the best value for his money.

WE ARE READY TO TALK 1901 QUOTATIONS. ARE YOU?

BRIDGEPORT BRASS CO., . . . 19 Murray Street, NEW YORK.
Mills, Bridgeport, Conn.

WYOMA==Universal.



COMPLETE.
PATENT APPLIED FOR.

NO
BALLS
USED.

All Coaster-Brakes with balls have been and are **unsatisfactory**.

The Wyoma is the only detachable brake containing **absolutely no balls**. It has tool-steel rollers which cannot crush or cut grooves, and a **cone-shaped fibre** braking-surface, rendering it exceptionally powerful.

The Detachable model can be made to fit any standard hub, or furnished with hubs if desired.

MADE IN TWO FORMS.

"Universal" model combined hub and brake.

"Detachable" model for fitting to various hubs.

THE WYOMA UNIVERSAL is the new form, a brake and hub combined, made on same mechanical principle as the "Detachable," which has given such universal satisfaction. Has no arm to fasten to frame—the only coaster-brake that does not require one. Ordinary spokes can be used, and wheel laced up without taking brake apart.

THE WYOMA DETACHABLE had an unprecedented sale during past season, and will be made to fit to all leading wheels the coming season. Fit the Wyoma to your own hubs and thereby use your own bearings. Furnished with hubs, if desired.

Wyoma Coaster-Brake Company,

Tenth and Exeter Sts., READING, PA., U. S. A.

Cable Address, "WYOMA."

THE GOODMAN COMPANY,

124 Tribune Building, New York.

Enclosed find \$2.00 for which enter my subscription
to the BICYCLING WORLD for one year, commencing
with the issue of _____

Name _____

Address _____

CHAINLESS DEVELOPMENT

Sager Gears Tuned up to a Fine Pitch and Ready for the Frame.

Additional evidence of the increasing popularity of the chainless is had in the announcement of the Riggs-Spencer Company, of Syracuse, N. Y., that their chainless fittings are now ready for the trade. They expected to have samples ready for manufacturers early in the fall, but the delays which always occur in the starting of a new plant, installing machinery and preparing fixtures and tools for the accurate manufacturing required by them caused delay.

Of their chainless mechanism, the Riggs-Spencer people say: "We have no hesitation in saying that for simplicity of construction and ease with which all essential parts are accessible, their construction is far ahead of anything ever offered. There is no doubt that chainless bicycles have suffered to a great extent for two causes: one, the complicated mechanism which every manufacturer has seemed to think necessary to accomplish the results they desired, and, the other, the lack of smoothness in the operation of the gears.

"We claim that it is practically impossible to cut a bevel gear that will admit of the smoothness in operation obtained by the Sager gear. We think we know whereof we speak, as we have both had extensive experience with chainless bicycles, having been connected with E. C. Stearns & Co. until that firm was absorbed by the American Bicycle Company; soon after that occurred we formed the Riggs-Spencer Company. Mr. Spencer was the superintendent of the Stearns factory up until the time of his leaving.

"In the Stearns factory were built both the Sager and bevel gear chainless in large quantities. In the latter E. C. Stearns & Co. used, as they always have in everything, the best the market afforded, but, notwithstanding this advantage, their customers were not slow in discovering the advantages possessed by the Sager gear, resulting in a highly satisfactory business. We were so favorably impressed with their experience with the Sager gear and with the prospects for business with chainless bicycles, providing a simple mechanism was devised, that we started work along this line, with the result that we have succeeded in making a simple mechanism and one that will be welcomed by riders, dealers, repairers and manufacturers alike. Our mechanism is so simple that it may be taken apart and put together in a few minutes and without losing an adjustment. This is a point that will be appreciated by any one who has ever had to attempt to make a repair on a chainless bicycle."

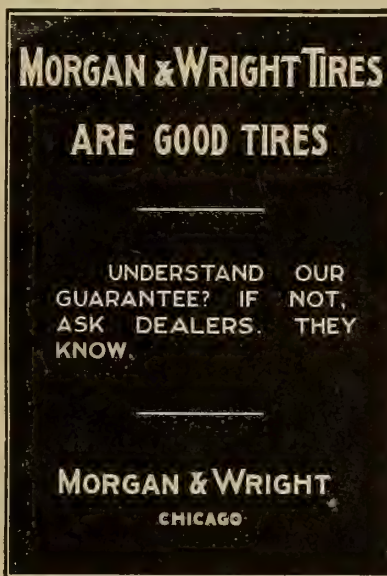
The firm also has a coaster brake of which great things are said in Rochester, and by those who have been permitted to see it. They promise details in a short time.

Lucas may Reorganize.

Denial follows close on the heels of the report that the Jos. Lucas Lamp Company, of Bristol, Conn., would discontinue business.

The concern was organized in 1897 for the purpose of manufacturing the King of the Road and other well known Lucas bicycle lamps in this country. It was closely connected with the New Departure Bell Co., and both concerns used shops that were run by the same power. The directors and officers of the two companies are almost identical.

Manager Rockwell stated last week that there might be a reorganization, and that the English stockholders might withdraw, but that the making of bicycle lanterns would be continued. The concern employs sixty or more men, and has been one of the substantial industries of Bristol since it was organized a few years ago.



NEW YORK BRANCH: 214-216 WEST 47th ST.
BOSTON BRANCH: 80 BATTERY MARCH ST.,
Near Fort Hill Square.

Chance for Chainless in Germany.

"The chainless wheel is quite popular here," says Consul T. J. Albert, writing from Brunswick, Germany. "I am told that the American chainless cycle might find a market here next season if it can be delivered to the dealer so that he can sell it for \$75, as the highest price for the best article manufactured. August Bonewald, one of the principal dealers in bicycles in Brunswick, is prepared to represent American factories."

Hartford Tire Expansion.

The great growth of the Hartford tire in the metropolitan district is being attested this week in convincing fashion. The New York branch is exactly doubling its room and facilities by cutting through to Reade street, and occupying the entire store; this will give the Hartford people two entrances, the present one on Chambers street, and the new one in Reade street.

ABOUT BRAZING

How the Spelter is Made and how the Best Results are Obtained.

In joining two objects, whether by hard or soft soldering, says an authority on the subject, it is obvious that the melting point of the metal being worked on must be considerably higher than the solder used for the purpose of making the joint. At the same time, as a rule, the joint will be the stronger the more nearly the solder approaches the melting point of the metal, and where the body of the work in the region of the joint is sufficiently heavy and uniform a harder solder may be used with advantage, but if the work be delicate and complex, or there is danger of "burning" the metal through overheating, then it is better to be on the safe side by using solder of lower melting power; there are, of course, other considerations which will determine the class of solder to be used, but where the greatest strength of joint is required and the material being united is capable of withstanding the greater heat the harder solder will give the best results.

Hard solder or "spelter" is a mixture of copper and zinc, and in some cases, for special work, silver is added, or silver alone may be used, and all ductile brass may be used as solder, according to the metal to be united, the general combination for works in iron and steel being equal parts of copper and zinc, or a harder spelter of 60 parts copper to 40 zinc; where greater fusibility is required it may be had by increasing the percentage of zinc, but this renders the solder brittle, and for fine work which demands a lower heat with great strength and toughness a mixture containing silver is to be preferred, varying from copper 25, zinc 50 and silver 25, to copper 40, silver 40 and zinc 20, the latter, of course, being the harder and requiring the greater heat.

The commercial spelter used in cycle work, and known as brazing solder, is composed of copper and zinc in various proportions, and of granular form, in different degrees of fineness, from mere dust to coarse grains, numbered 00 to 7, the low numbers being the finest, and the sizes most generally in use for cycle work being 2 to 5, size 3 being perhaps in most general demand, and one fact to be remembered is that the coarser grained stuff melts at a lower heat than the fine grain of same composition, a condition the reverse of what would generally be supposed. In place of grain spelter, the brass may be had in ribbon or strip, termed filling wire, or in round wire of various sizes, and for certain work one or the other is preferable to the grain spelter.

It is reported that the Clipper factory at Grand Rapids, Mich., will soon be operated as an automobile factory.

The Retail Record.**CHANGES.**

Chalmers, Ind.—Gillett & Goslee, sold out.
La Grange, Mo.—E. C. Edwards, sold out.
Mannington, W. Va.—J. Hawker, sold out.
New Windsor, Ill.—Albert Peterson, sold out.

Harlan, Ia.—Fay & Poling succeed R. G. Fay.

Nephi, Utah—L. A. Bailey & Son, discontinued.

Austin, Tex.—K. Von Boeckman, discontinued.

Jamaica Plain, Mass.—Chas. E. Johnquist, closed.

Rantoul, Ia.—Geo. W. Hall succeeds C. J. Williams.

Cleghorn, Ia.—David Gowan succeeds J. W. Dailey.

Troy, N. Y.—S. D. Nichols succeeds Nichols & Egnor.

Cambron, Wis.—P. J. McDonald succeeds Christ Sherin.

Caledonia, O.—Harrison & Ivey succeed Doyle & Lee.

Vermillion, Kan.—J. L. Rogers succeeds H. E. Turner.

Dayton, N. J.—Bastedo & Erickson, dissolved partnership.

Escondido, Cal.—E. M. Churchill succeeds C. Young & Co.

Clemons, Ia.—Mooney & Mooney succeed Jones & Mooney.

Seaton, Ia.—C. A. Miller succeeds McIntyre & Dalrymple.

Boscobel, Wis.—Perkins & Pullen succeed Perkins & Walker.

Abelman, Wis.—Charles Geissler succeeds A. G. Baumgarten.

Mantorville, Minn.—J. Wright succeeds Wright & Anderson.

East Brookfield, Mass.—Moreau Bros., closed for the season.

Northampton, Mass.—A. J. Englehart, closed for the season.

Plevna, Ill.—Arthur Hamilton succeeds Hamilton & Applegate.

Plymouth, Ind.—A. R. Underwood succeeds Underwood & Son.

New Lexington, O.—McGirn & Stinchcomb succeed McGirn, Ward & Co.

Princeton, Ill.—Wm. H. Bauschbach succeeds E. A. Bauschbach & Bro.

Springfield, S. D.—Springfield Hardware Co., succeeds Davidson & Mauksch.

Des Moines, Ia.—The Merchants' & Manufacturers' Supply Co., succeeds Kenyon Bicycle Co.

Owego, N. Y.—Strong & Romaine have purchased repair business of E. H. Strong and will remove it to 14 Lake street. E. H. Strong will continue his retail business at the old location, 208 Front street.

NEW STORES.

Westerly, R. I.—Albert C. Smith.

Renville, Minn.—G. A. Knott, repairing.

Marion, N. Y.—L. M. Rice, jr., is erecting a repair shop.

FIRES.

Louisville, Ky.—Philip Lipski.

Escondido, Cal.—Young & Churchill.

The Week's Patents.

663,297. Bicycle Brake. Albert H. Nield, Coutolené, Cal., assignor of one-half to P. M. Ream, Lovelock, Cal. Filed June 7, 1900. Serial No. 19,352. (No model.)

663,195. Handle-Bar. James T. McGuire, Albion, Mich. Filed Jan. 19, 1900. Serial No. 1,983. (No model.)

663,175. Wheel and Tire. Thomas J. Ketcham, Matamoras, Pa. Filed Sept. 21, 1897. Serial No. 652,430. (No model.)

663,121. Lamp-Bracket. Walter J. Frost, Kenosha, Wis., assignor to the Badger Brass Mfg. Co., same place. Filed Mar. 17, 1900. Serial No. 9,126. (No model.)

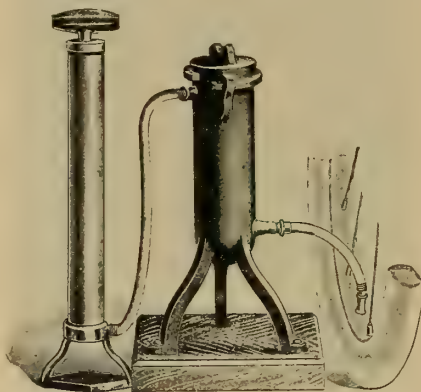
663,093. Valve for Inflation. Roland C. Hilton, New Bedford, Mass., assignor of one-fourth to James M. Willis, jr., same place. Filed July 10, 1900. Serial No. 23,117. (No model.)

DESIGN PATENTS.

33,648. Wheel. Orville L. Leach, Providence, R. I. Filed Nov. 9, 1900. Serial No. 35,986. Term of patent, 14 years.

For Injecting Tire Fluid.

After having "had their fill" of suction pumps for injecting anti-leak fluid into sick tires, the Buffalo (N. Y.) Specialty Mfg. Co.



have designed the fluid injector shown by the accompanying illustration. The injector is filled with puncture closing tonic and attached to the tire stem, the valve having been previously removed. A foot pump is attached to the injector as shown and its operation forces the fluid into the tire. This avoids the clogging of the pump and avoids waste, enabling the user to know exactly how much fluid has been injected.

Learning the Motor Bicycle.

"Talking about the ease with which the motor bicycle can be learned and handled," said C. H. Metz, president of the Waltham Mfg. Co. the other day, "we had an excellent illustration during the recent Automobile Show. A young man came to our exhibit, looked critically at our motor bicycle and finally said he believed he could ride it, although he had never seen one before. We gave him the chance. He mounted the machine and one of our men ran beside him for a few yards after he got started. When he got under way we left him to himself and he simply sailed around that little track in the Garden. He was so tickled that he kept it for half an hour."

The Week's Exports.

Exports of bicycles and cycle material from the port of New York for the week ending December 11, 1900:

Amsterdam—1 case bicycles, \$17; 14 cases bicycle material, \$267.

Argentine Republic—1 case bicycles, \$90.

British East Indies—19 cases bicycles, \$629; 5 cases bicycle material, \$359.

Bremen—1 case bicycle material, \$18.

British Possessions in Africa—6 cases bicycles and material, \$202.

British Australia—12 cases bicycle material, \$308.

British Guiana—7 cases bicycle material, \$335.

British West Indies—100 cases bicycle material, \$2,482.

Christiania—3 cases bicycle material, \$85.

Copenhagen—47 cases bicycles and material, \$2,249.

Cuba—13 cases bicycles and material, \$491.

Glasgow—2 cases bicycles, \$60.

Genoa—2 cases bicycles, \$178; 28 cases bicycle material, \$943.

Hamburg—9 cases bicycle material, \$274.

Harve—8 cases bicycle material, \$443.

Lausanne—4 cases bicycles, \$55.

Liverpool—53 cases bicycles, \$650.

London—19 cases bicycles, \$330; 47 cases bicycle material, \$3,971.

Manchester—1 case bicycles, \$35.

Mexico—2 cases bicycle material, \$508.

Plymouth—1 case bicycles, \$30.

Rotterdam—8 cases bicycle material, \$315.

St. Petersburg—14 cases bicycle material, \$986.

Uruguay—20 cases bicycles, \$511.

Address New York not Bridgeport.

The Bridgeport Brass Co. desire it known that all communications concerning their searchlights should be addressed to their New York office, 17 Murray street. When letters are sent to the factory at Bridgeport, as is frequently the case, it necessitates their being reforwarded to New York, thus entailing the loss of a day and sometimes two days.

Weston Comes to New York.

Frank F. Weston, than whom few men are better known to the trade, has formed connections with the Snell Cycle Fittings Co. and will represent that concern in the East. He is preparing to establish his headquarters in New York City.

To Acquire a Motorcycle Education.

"Motorcycles and How to Manage Them." The name explains the nature of the book. Price 75 cents. For sale by The Goodman Company. * * *

Departing from the Diamond.

It appears to be quite the fashion on the other side to bring out a machine with a frame differing from the regulation diamond pattern. In addition to the Raleigh and Referee cross tube types, the Cycle Components Co. are preparing to push a machine designed on somewhat similar lines.

In it two tubes are used instead of the customary one running from the saddle post to the upper head; one of these tubes starts at the saddle post, meets the other about midway, and is continued to the lower head, while the second is carried from the upper head to the diagonal, not quite half way down it, crossing the first tube also.

Increased rigidity is the claim made for frames of this type, but it is doubtful whether any material gain is made, while the greater weight and complexity are likely to prove effectual barriers to any general adoption of this method of construction.

Satisfied with Brazeless Joints.

That brazeless frame joints are a success mechanically, if not commercially, is shown by their retention on the higher-priced Humber models for 1901 after several seasons' use. This joint is claimed to have "proved itself eminently efficient, and is particularly useful in cases where the machines are required to be packed for shipment, also considerably decreasing the difficulty of repairs, the tubes and fittings being thoroughly interchangeable."

Houses a Circus Now.

The plant of the Geneva Cycle Co., of Geneva, O., which was bought out by the American Bicycle Co., has been leased to Walter L. Main, who will use it to house a circus in during the winter and to equip it for the road in the early spring.

Here's the Bicycle Ambulance.

Now comes the bicycle ambulance and shows how the bicycle is continually being put to new uses. It is intended not only to carry away the wounded, but also to enable aid to reach them more speedily. When the wounded man is placed on the stretcher the machine can be manipulated by one person—the rider.

The bicycle is provided with a curved bar at the front and rear, which is clamped to the frame and provided with sockets to receive the sides of the frame. The latter is of light tubing and has braces to stretch the canvas when the stretcher is open. When not in use the braces are folded in line with the frame, and the whole may be rolled up and attached to the bicycle without interfering with the rider sufficiently to impede his progress.

To steer the wheel when the stretcher is in use an elongated handle is clamped on the front fork, extending nearly to the level of the canvas, the rescuer using one hand to push the ambulance and the other to steer with.

Combining Against Big Competitors.

According to dispatches from Chicago, another combine is on the tapis. This time it is the small mail order houses, which feel it incumbent on themselves to take measures for their mutual protection in order to prevent the big concerns, such as Montgomery Ward & Co. and Sears, Roebuck & Co., from gobbling all the business.

The small concerns have been complaining because the larger houses have been able to get reduced rates from the publications that circulate among country buyers, while the smaller firms have been obliged to put their "ads" into small space and pay high rates.

If experience is the best teacher—and it is—then our experience of

58 YEARS

in making all sorts of bells for all sorts of people,

OUGHT TO CONVINCE YOU

that we know the business pretty thoroughly, and can supply you with the best of bells at the best of prices.

We even make bold to say that we do not believe you can afford to place an order until you see our goods and get our prices.

If you will write us, we will be pleased to give you the reasons.



BEVIN BROS. MFG. CO.,

East Hampton, Conn.

(Business founded 1832.)

Also makers of Trousers Guards, Toe Clips, Lamp Brackets, etc.

Read what **Mr. J. G. Swindeman**, the prominent bicycle dealer of Toledo, Ohio, has to say about the

CUSHION FRAME

HYGIENIC WHEEL CO.,
220 Broadway, New York.

GENTLEMEN:—

The writer is so thoroughly elated with the sales of **Cushion Frames** that it will, perhaps, please you to share in the enjoyment. Your **HYGIENIC CUSHION** has certainly proved its merits and worth. I introduced the Cushion Frame in Toledo, and my efforts have been rewarded with a revival in wheeling without precedent. Many men and women, who had given up the bicycle, owing to discomfort, have, upon a trial ride only, given me their order, and are to-day enjoying comfort and ease in the daily use of their bicycles. The universal expression is "The right thing in the right place." Each sale brings me additional converts. I am confirmed in the belief that the **Cushion Frame** will eventually be the future wheel for general riding.

Yours very truly,

J. G. SWINDEMAN.

You will find the **Cushion Frame** bicycle to be a great trade winner, and your 1901 line will not be complete without it.

Write your manufacturers about them.

NOTE:—Cushions are attached only to **HIGH GRADE BICYCLES**.

FAR EAST TRADE

Peculiarities to be Observed in Dealing with China and Japan.

Prior to the treaty convention with Japan, which became effective with all the Powers during July of last year, the foreign merchants were not permitted to directly trade in the interior, and even now all business with foreign countries is conducted at the three ports of Yokohama, Kobe and Nagasaki, at which places nearly all nationalities are represented with local merchandising firms, says the American Exporter.

The foreign merchant in Japan is little more than a commission merchant, and seldom imports on his own account, but only orders such goods as may have been sold through samples to the native merchants. These merchants are dependent upon the intermediary efforts of their "Bantos," or native clerks, and are completely at the mercy of these employees. Outside of the port towns comparatively few Japanese speak English, and it is quite unusual to find any one of the 4,000 foreign residents of the country who has sufficient knowledge of the Japanese language to conduct business negotiations without the assistance of an interpreter; therefore the position of the Banto is an ideal one for the unscrupulous native.

The foreign merchants in Japan generally

import merchandise on a basis of 2½ per cent commission on the home cost of such goods ordered of them, and few of these local firms will make a contract or accept an order from a Japanese dealer, irrespective of his financial standing, unless 25 per cent, which is termed "bargain money," is deposited as soon as an order or contract is signed, and never do they surrender goods until full payment is covered by the native.

Nearly all the foreign commerce of China is confined to the ports of Shanghai and Hong-Kong, the former being the distributing centre for the northern provinces and the latter port supplies the southern provinces. As in Japan, foreign merchants of nearly all nationalities operate at the several ports and act as exporters and importers for the native firms.

The "Compradore" occupies a similar position with the foreign merchant in China to that of the "Banto" in Japan, with the important difference, however, that although in the capacity of an employe in selling to the native trade the "Compradore" frequently finances the foreign firm by whom he is employed, and has a share in the general profits of the business.

Generally speaking, the Chinese merchants are thoroughly responsible in their transactions with foreigners. Foreign merchants in Shanghai and Hong-Kong have no hesitancy whatever in executing orders for their native customers without other security

than a signed order, as a Chinaman's word is kept. The Chinese merchant abhors everything in business transactions which he may determine as "no proper," and the foreigner who resorts to "tricks of trade" is commercially doomed by these people.

The Chinese are much quicker to grasp a business proposition than the Japanese, and it is an easy matter for the foreigner acquainted with the vernacular "pigeon English" to dispense with the services of an interpreter. "Pigeon" is a most terse and expressive language in itself; for instance, the writer often had this personal experience in offering some American goods to a large native merchant: After giving information as to the cost and other details, the Chinaman abruptly interrupted the conversation with the remark, "Walkee cargo, sleepy cargo," which, interpreted, meant, "Is the cargo on the way or is it in warehouse here?" When it was explained that the shipment was en route the negotiations were satisfactorily ended by the Chinaman's further terse remark, "Can do" ("Will buy"), which words delight the heart of the commercial missionary seeking business among the Chinese.

Whatever may be the faults of the Chinese as a nation, it is conceded by all foreign residents with general experience in the Orient that intellectually and in commercial morality these people are far superior to all other Asiatic races.



Fisk Tires

The Fisk Guarantee

We guarantee all Fisk Tires for one year. If during that time they develop any weakness or defect not the result of abuse or accident, we will gladly replace them.

We could not afford to do this at the present price tires command, did we not know that Fisk Tires will stand the hardest test to the rider's satisfaction.

Our guarantee is an earnest of our faith in our product and the strongest protection a rider, dealer or maker could wish for.

FISK RUBBER COMPANY, Chicopee Falls, Mass,

BRANCHES:

SYRACUSE, 423 So. Clinton St. BUFFALO, 28 W. Genesee St. DETROIT, 252 Jefferson Ave.

DISTRIBUTORS:

United Supply Co., Boston. Henry Keidel & Co., Baltimore. Pratt Bros. & Co., Agts., Chicago.
A. F. Shapleigh Hdw. Co., St. Louis. E. T. Weiant, Denver.
P. B. Bekeart, Agt., San Francisco.

HAWKINS
1123 B WAY

WHICH IS FASTER?

Recurrence of the Disputed Speed of the Two Types of Tire.

It is still a disputed question which is the faster or more resilient tire—the single or double tube. Each type has its advocates, and their contentions are frequently diametrically opposed; consequently, no amount of proof suffices to convince either of the opponents.

Originally the palm for resiliency was unhesitatingly awarded to the double tube. The first single tubes were reproached with being heavy and lifeless, and it was these objections, almost as much as the inability to make satisfactory repairs, that had to be overcome before the tire was able to enter on its career of popularity. The double tube tire, on the contrary, was speeded on its way by the general belief that it was an easy riding—and consequently fast—tire.

Just how the tables came to be turned it is not easy to say; but it is undeniable that in the course of a comparatively short time the stigma of slowness was removed from single tube tires. They were generally admitted to be quite as fast as double tubes, and there were not wanting admirers who went far beyond this and claimed a decided superiority. Racing men adopted them, both because of this assumed superiority and on account of their lightness.

It has been claimed that the single tube was faster because the outer and inner tubes were vulcanized together; while the advocates of double tubes contended that the greater resiliency of the latter was due to the fact of the tubes being kept separate and removable. But why either method of construction should bring about this result could not be satisfactorily explained.

The experience of an English rider only beclouds the matter more thoroughly. Finding that his bicycle was running hard, or "dead," and examination of the machine itself failing to account for it, he was for a while nonplussed. "One day, however," he says, "I thought I would overhaul the tires, and found that the air tubes were both sticking fast to the outer covers.

"It required great care to remove them without damage, and after dredging plenty of French chalk into the covers I replaced them. The difference in the running of the machine was very remarkable. Before it seemed as dead as ditch water, but now it was as full of life as on the first day I got it into really good running order.

"But I fail to see any reason why a machine should run better because the air tubes are not fast to the covers. If on the theory that the single tube tires are the faster the very reverse should be the case."

More Important Than Ever.

Riders whose cycling experience dates back to the prepneumatic days will recall the great inconvenience suffered through excessive vibration at the handle bar. At the end of a long ride the wrists would frequently be numb and aching with pain.

Various devices were used to do away with this source of trouble, the most popular being to fit springs of some kind to the front forks.

They did some good, but there was still considerable ground for complaint. The pneumatic tire, however, put a quietus to the vibration bugaboo—for the time, at least, and it was eliminated from the current discussions of the day.

The gradual shrinkage in the size of air tires has raised the issue again, and the advent of motorcycles is certain to add immensely to its importance.

Vibration at the rear of machines is bad enough, although there is always the possibility of minimizing it in various ways. But at the front it is much more difficult to deal with, and designers generally admit that the problem is not an easy one to solve.

The matter is aggravated as far as motorcycles are concerned by the necessity of providing for enormous strength and rigidity to enable the frame to carry the weight and resist the shocks it is certain to encounter. But it is exceedingly difficult to obtain these qualities without adding to the already excessive vibration.

At the same time, it is easy to see that a compromise of some kind must be reached.

Just how the dispute will be settled it is too early to say. It is reasonably certain, however, that absolutely rigid front forks—especially on tricycles—are out of the question.

Where the Best Rubber Grows.

Reporting to his Government on the rubber industry of Bolivia, the Belgian Consul-General at Santiago says that the best rubber comes from trees (*Hevea Brasiliensis*) growing on land which is covered with water all the year round. That coming from trees the roots of which are under water during a part of the year is not of such good quality. On high ground, caoutchouc, inferior to rubber or "seringua," is found in abundance. Both black and white caoutchouc are found in Bolivia along the water-courses flowing toward the Amazon.

Novelty in Tire Guarantees.

One of the English companies has instituted a distinctly original guarantee. Instead of warranting their tires for a particular period, they guarantee the depth of the rubber on the tread. On the first grades they guarantee the tread to be one-eighth of an inch thick; on the second grades it is three-sixty-fourths of an inch. A short section of each tire goes with every tire sold, and these tires are guaranteed to be of the same quality as the sample which accompanies them.

SADDLE LEATHER.

In English saddle catalogues buyers are advised to select black leather, the claim being made that a superior dressing can be used. The Persons Mfg. Co. introduced brown leather saddles in this country, and about seventy-five per cent. of the middlings they are cutting this season are brown. As applied by them this color has always given most satisfactory service.

PERSONS

The King of



Suspension

SADDLES



PERSONS

PERSONS

THE HIT OF THE SEASON.

On December first the Persons Mfg. Co., of Worcester, Mass., had on file contracts calling for fifty per cent. more saddles for the opening season than they sold in the past twelve months. They claim that the distinctive mark of a high-grade machine in 1901 will be a Persons saddle.

Changes in Foreign Patents.

The report of the Commission to revise the patent and trade mark laws, consisting of Judge Grosseup, of Chicago; Francis Forbes, of New York, and former Assistant Commissioner of Patents Greely, was submitted to Congress last week. The Commission finds little in the patent systems of other countries preferable to that of the United States, the changes suggested being confined almost exclusively to the standing of foreign patents here.

These changes are that foreigners taking out patents in the United States be required to place themselves constructively within the jurisdiction of American courts by designating a resident of the United States to accept service in any proceedings brought against them; second, that an unpublished foreign patent shall be no bar to the grant of a patent in the United States; third, that the mere fact of having applied for a patent abroad shall not prevent an inventor from obtaining a patent here, and, fourth, that after a patent has been granted to one inventor for an invention, the patent for the same invention subsequently granted to another who proved the first inventor shall expire with expiration of the term of the patent granted.

The Commission found so many changes necessary in the trade mark laws that those statutes were practically rewritten. They

recommend, first, the registration and protection by statutes of trade marks used in interstate commerce; second, the registration of all marks which could be protected under the common law; third, a reduction of a registration fee from \$25 to \$10, and a simplification of registration procedure, and, fourth, that a registered trade mark be given sufficient protection additional to that afforded by common law as would induce the owners of the marks to register them.

Seizure was Illegal.

At Indianapolis, Ind., last week, Justice Lockman awarded John Cotton \$30 damages against J. B. Orman and others for taking a bicycle which he had left standing in front of the Baldwin Block. Cotton had purchased the wheel of the Mohawk Bicycle Company under a guarantee that it was in first-class condition, but he had to return it several times, owing to defective tires. The cost of the wheel was \$32.50, of which he had paid all but \$7.50. At length, becoming disgusted with poor tires, he had a set of good ones put on at his own expense. One day recently he left the wheel at the curb while he went into the Baldwin Block to transact some business, and during his absence one of the agents of the bicycle dealer took the wheel, and the company refused to give it up.

"Motocycles and How to Manage Them." The only book of its kind in existence. Price, 75 cents. For Sale by The Goodman Co.

Perry's New Brake.

Entirely new in principle is a back-pedalling brake recently introduced by Perry & Co., the celebrated English chain makers. A smooth peripheried wheel is fixed to the left-hand crank, and the principle of the brake is its application by means of a small pulley wheel between the crank wheel and a curved lever.

This latter is so arranged that its distance from the friction wheel is smaller at the bottom than at the top. This curved lever is fitted to another lever having a slotted end, the nut securing the curved lever in its position working up and down in this slot. The upward end of the second lever is attached to an adjustable nut, which is connected with the yoke carrying the brake fork.

When the rider is pedalling forward, the small pulley is kept at the top of the curved lever, but directly a back-pedalling motion is commenced the pulley traverses downward into the narrower space, and consequently moves the lower end of the curved lever outward, thus setting into operation the lever which works the brake shoe.

A very gradual application can be obtained, but there is no mistaking the power of the application when full, although it can be entirely controlled by the rider.

W. S. Achorn, of Achorn & Deacon, bicycle dealers at Lynn, Mass., is a candidate for the Common Council of that city.



**PIERCE
PAN AMERICAN
SPECIAL**

COMBINES
CUSHION FRAME,
CHAINLESS,
HUB COASTER BRAKE,
WITH
SUCCESS

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

Test of Tricycle Carriers.

The use of motorcycles is becoming pretty extensive among tradespeople in Paris, who find that these machines are economizing a great deal of time, as well as money, since they can carry a weight which represents a diminution of so many hands employed for this purpose. Besides, the rapid delivery of goods is a point which favorably strikes the customer, who is usually anxious to get his purchases without loss of time. These carriers are being used on such a large scale that it has been decided to organize a test of machines from Paris to Versailles and back, when the organizers will take into account the time occupied, the weight carried and the consumption and other matters, so as to decide upon the most economical and efficient types of motor carriers. This test ought to have some very useful results.

Will Come out of the West.

A light roadster or semi-racing model has been added to the Wisconsin Wheel Work's Mitchell line; it will scale twenty pounds or less. One inch tubing, flush head sets, racing hubs and one-eighth inch chain will be used.

GASOLENE MOTORS

FOR

Bicycles, Vehicles and Launches

AIR COOLED AND WATER JACKETED

ACCESSORIES AND PARTS

ALSO

Complete Sets of Castings and Working Drawings

LOWELL MODEL CO.

Box 292 LOWELL, MASS.

All American wheelmen who desire to keep themselves posted upon matters concerning the cycle in Europe, its trade, mechanics, and sport, should subscribe to

THE CYCLIST

AND BICYCLING AND TRICYCLING TRADES REVIEW.

The only recognized authority of English trade and manufacture. Sent post free to any part of America for one year, \$3.25. American manufacturers having novelties in machines or sundries to introduce should advertise in

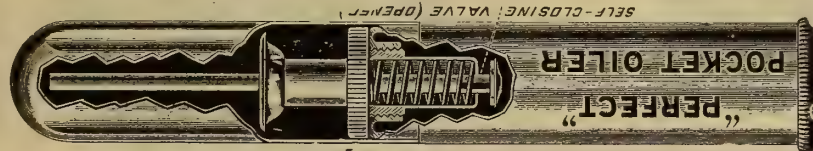
THE CYCLIST.

Terms on application to

ILIFFE SONS & STURMEY, Ltd.,
19 Hertford Street, Coventry, England.

Members of the American Trade visiting England are invited to call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street, Ludgate Circus, London, E. C.

"PERFECT" OILER.



25c.

A few of MANY UNSOLICITED Testimonial Letters.

"WE VOTE IT A SUCCESS."—Pope Mfg. Co., Hartford, Conn.

"WE ARE MUCH PLEASED WITH THEM."—Warwick Cycle Mfg. Co., Springfield, Mass.

"THEY GAVE THE BEST SATISFACTION OF ANY OILERS WE SOLD."—Keller & Walker, Moline, Ill.

"JUST THE THING I HAVE WANTED FOR YEARS."—F. E. Worth, Indianola, Iowa.

"THE ONLY OILER THAT DOES NOT LEAK."—W. D. Anderson, Dallas, Texas.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.

MORROW

COASTER AND BRAKE.

Over 100,000 Sold
Last Year.Everyone Giving Satisfactory
Service.Make Your Cycle Saleable and
Desirable by Fitting it with
the MORROW.

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THE AUTOMOBILE AUTHORITY OF AMERICA

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The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., December 20, 1900.

No. 12.

SCHOENINGER DEAD

Another Trade Veteran Passes Away—Was a Pioneer in Popular Prices.

Adolph E. Schoeninger, president of the Western Wheel Works, died at Los Angeles, Cal., last week.

Mr. Schoeninger, who was sixty-seven years of age, has been in failing health for some time. He went to California in October last, hoping that the genial climate would bring about an improvement, but this was no to be.

The connection of Mr. Schoeninger with the trade dates back many years ago, when the concern was known as the Western Toy Co. It has been some years, however, since he took an active interest in the business.

Philadelphia Selects Show Dates.

The Philadelphia Cycle Board of Trade has decided to hold its automobile, motorcycle and cycle show from January 26 to February 2 next, inclusive, at the Third Regiment Armory, Broad street, below Federal. Diagrams showing the arrangement of spaces, applications for spaces and rules governing the show are now being circulated by W. S. Emerson, secretary of the board.

Col. Dodge is Convalescent.

Col. Theodore A. Dodge's illness, which has been so serious as to cause doubts of his recovery to circulate among the trade, has taken a favorable turn, and unless a set back occurs its termination may be looked for soon. He was attacked by pneumonia several weeks ago and has been confined to his house ever since.

Jeffery Gets Sterling.

The Sterling factory at Kenosha, Wis., has been sold by the American Bicycle Co. to Thomas B. Jeffery, who, it is stated, will manufacture automobiles there. The price paid is said to have been \$65,000.

Crosby Adds a Saddle Account.

The selling agency for the new Reading (Pa.) Saddle & Mfg. Co. has been placed with the Crosby Co., of Buffalo.

Goodman Leaves the A. B. C. Service.

Henry Goodman, one of the Pope Mfg. Co.'s veterans, has resigned as manager of the A. B. C. branch in Portland, Oregon, after having been continuously identified with the Columbia interests in various capacities since 1884. He is well known in the East, having been attached to the Pope headquarters in Hartford until he was given the Portland management, in January, 1897.

To a local paper Mr. Goodman gave some figures which shows how greatly the cycle trade in the Pacific Northwest has expanded during the past three years while the East was suffering a period of unpleasant depression. He is quoted as saying:

"The Portland branch is the only branch of the company in the United States which has, in the past two years, shown any profit on the business done. I arrived in Portland January 5, 1897, and took up the old Habi-ghorst business, which at that time amounted to about \$30,000 a year for the same territory I have control of. The first year's business was increased to \$88,000. The second year, while every other branch in the United States showed a decrease, the Portland branch increased its business to \$115,000. In 1899, the Portland branch more than doubled its business, going over the \$200,000 mark. In 1900 we almost reached the \$250,000 mark."

The "Cycle Age" itself Again.

The Cycle Age Publishing Co. made something of a record in recovering from the embarrassing position into which it was thrown by a dissatisfied member of the corporation. The latter had the receiver appointed, but within thirty-six hours the company brought such weight to bear that the court discharged the receiver. George K. Barrett, who brought about the trouble, has since retired from the management of the company and from the staff of its publications.

Junk Dealer Gets Owen Stock.

Some 225 bicycles, together with tools and other stock, the property of the Owen Bicycle Co., of New London, Conn., was disposed of to F. E. Gledhill, a New London junk dealer last week.

FOWLER FIRED

That is to Say His New Factory is Badly Damaged by Flames.

Just as the Fowler Cycle Co. had become settled in their new quarters, at 70-74 Carpenter street, Chicago, and were about to begin work on next season's machines, they were visited by a fire which caused them a loss of about \$25,000 and left them in pretty bad shape.

The fire started in the basement of the building, near the heating plant. It spread rapidly up the elevator shaft, and caused the roof and about half of the third floor to cave in, carrying with them a considerable portion of the machinery which had just been set up. Fortunately the firemen were able to confine the fire to the third floor and the roof, and the machinery and stock on the lower floors were only damaged by water and smoke.

The Fowler Co. moved into the building about four months ago, and carried \$30,000 insurance.

The Old Debt Still Pursues Him.

The six day race in Madison Square Garden which ended on Saturday last had an unpleasant aftermath for one of the foreigners, Karl Kaser, the Swiss. It took the form of a writ served on the managers of the race and sworn out by R. H. Wolff & Co. for a debt of \$749, claimed to have been contracted in 1898, when Kaser was an agent in Switzerland of the Wolff people. When the writ was served Kaser had his money. Some thought that he was "tipped off" on Saturday night and got the cash then. At any rate, the managers had no money of Kaser's, and the Sheriff went away empty-handed.

Were Destroyed in Ottawa Fire.

The Ottawa-Hull fire is recalled by a suit instituted by the Canada Cycle & Motor Co. against the Canadian Pacific Railway for \$2,250 in connection with a shipment of bicycles from Toronto to Ottawa. A number of the wheels were destroyed while lying at Ottawa, and others are being held on claims of salvage.

FIGURES FROM FRANCE

Official Returns Showing the Cycling Population—How the Trade now Trends.

Paris, Nov. 30.—If the genius who said that figures never lie had to fix up statistics about the motorcycle trade he would very soon come to the opinion that there is a suspicion of prevarication about figures which is not altogether explained by their bewildering tendency to work out issues in every possible way but the right one.

A short while ago returns were printed purporting to give the number of motorcycles and motor vehicles at present in use, as judged by the amount of taxes paid upon them, and people began to say sad and sorrowful things about the decadence of the new industry and the utter want of principle on the part of manufacturers, who said that they were turning out thousands of machines, when, as proved by the statistics, they were doing nothing of the sort. Another lot of figures—this time official—put the industry in a more hopeful light. These show that during the last year taxes have been paid on 735,541 bicycles and 6,081 motorcycles, so it would seem as if we are still moving, and that, after all, makers are telling the truth, as far as it is in their power to do, when they say they cannot build machines fast enough to satisfy the demands of customers.

ENCOURAGING RESULTS.

These results cannot be otherwise than encouraging. It is scarcely more than two years since the motorcycle began to be looked upon as a practical machine and attracted attention outside the ranks of a small crowd of enthusiasts who took it up because it was something new. And yet more than six thousand of them have been sold to home buyers and are actually in use. Of these there are 1,800 in Paris, which also counts 158,732 bicycles.

The six thousand motorcycles do not represent anything like the whole productive capacity of French makers, as there is probably quite as big a foreign demand for motorcycles as there is at home, and the quantity of machines sent away to England and Germany and other countries must go to swell the total turned out.

While the business done is encouraging, I do not say that it is phenomenal. If plenty of people are buying motor machines there are many others who are waiting until they can get something more suitable to them, a cycle, which is more comfortable and easier to manage; it is simply because there is an idea that the motorcycle is open to great improvement that the sales are perhaps not so great as they might be. Still, the demand is quite big enough to take all the machines that can be manufactured, and cycle makers and others seem to be making a good thing of it; but, to judge from appearances just now, it may be concluded that business will begin to slow down a little

until such time as further improvements in motorcycle construction convince buyers that they have got something which will better suit them.

SMALL MAKERS IN ASCENDENCY.

The fact that there should be nearly three-quarters of a million bicycles in use in this country, and that the number is rapidly increasing every year, doesn't seem to show as if there was much truth in the complaint that the cycle trade is on the down grade. The demand for wheels has never been so big as it was during the last season, but this heavy buying does not make trade boom, for the simple reason that it is now spread over an indefinite number of small makers instead of being confined to the big firms who at one time monopolized the business.

The big firms got their profits, and very good ones they were, by catering for customers who could pay for high grade bicycles; but since then the situation has changed somewhat, and the demand now runs not so much on the best machines as on wheels of medium quality. These are turned out by the small maker, who is usually ready to do business on easy terms, and he is thus getting round him a growing circle of customers, while the big makers find the demand for high grade bicycles less than what they can supply.

HOW AMERICAN CYCLISTS MAY REGAIN GROUND

Another thing in favor of French makers is that the competition of foreign wheels is by no means so keen as it was some time ago. This is a fact that it would be useless to try to overlook. The average Frenchman doesn't care whether his wheel has got all the up to date features or not so long as it does him good service and can be purchased for a reasonably low figure. The number of American machines being sold is much less than would seem to be warranted by the steady growth of cycling, and if American firms are to push their machines over here they must recognize that they have to cater for a very big class of buyers who know absolutely nothing of the mechanics of the bicycle, and who think that one wheel is just as good as another. Consequently they are more prepared to buy a cheap French bicycle than the superior, up to date wheel for which a higher price is asked. The only way of altering this state of things is to educate the French public up to the value of good machines. This may be a difficult task, but it ought not to be an impossible one, and there is no doubt that if American makers could carry on an active propaganda, so as to reach the average buyer instead of appealing to the much smaller class of well to do customers, they should be able to very largely increase their trade.

But in speaking of this three-quarters of a million cyclists I would refer more especially to the influence they may have on the motor trade in the future. Even if we take only an eighth of this number as being able to buy motorcycles, it is easy to see what a big opening there is for the sale of these machines. Every cyclist here has his atten-

tion turned more or less to motocycling, and as the machine is simplified and reduced in cost it will command an increasingly wide circle of customers, at the same time, of course, that there is probably a still bigger scope for business among those who are not cyclists and are attracted to the motor wheel either on account of its novelty or because it may be of real service to them. The big cycle makers are fully aware of the opening there is for motor propelled machines, and they are making arrangements to get as much profit from the business as they can.

Metric System up Again.

The annual effort to have Congress enact that the metric system of weights and measures be the American standard has once more been made. Congressman Shafroth, of Colorado, is the author of this year's bill; it is very brief, as follows:

"Be it enacted, &c., that from and after the first day of January, 1901, all the departments of the Government of the United States in the transaction of all business requiring the use of weight and measurement, except in completing the survey of public lands, shall employ and use only the weights and measures of the metric system; and from the first day of January, 1902, the weights and measures of the metric system shall be the legal standard weights and measures in the United States."

This measure was presented in the House on January 10, 1900, and when reported will be amended so as to make these provisions take effect January 1, 1902, and January 1, 1903, respectively.

Mr. Shafroth seems sanguine that the measure will be favorably reported. Speaking of the subject, he says:

"From all sections evidence is pouring in as to the absolute necessity for the adoption of this system by the United States if we are to keep up with the international procession, especially in our foreign trade. The acquisition of our new possessions, in all of which the metric system has been in use for years, might well be celebrated by the passage of this bill, and if there is any force in the argument that the Filipinos are not yet capable of self-government it is certainly a reflection on American intelligence that a system which is used with perfect ease by these benighted heathens would puzzle the people of the United States for a single week."

Regarding Germany's Queer Laws.

Those who wish to protect their trademarks in Germany or wish to gain information about the peculiar laws that are in vogue there, and that work to the manifest disadvantage of the foreigner, will find the pamphlet issued by F. A. Hoppen, of Berlin, of great value. It contains all words, drawings and pictures protected already, also such as have been refused, and for which the proper applications and payments have not been made. The cost of the pamphlet in question is only 38 cents.

BALKED AT BONUS

Interesting Story Showing Two Sides of the Clever and Oft-played Game.

When it works out entirely in accordance with the expectations of one or both parties to the transaction the bonus game is a good one. But when, as frequently happens, a cog slips, or something else goes wrong, there is trouble ahead for somebody.

Just at present the bonus game, as far as it applies to cycle manufacturing, is about played out. No one wants to erect new factory buildings, consequently there is no necessity for going to more or less remote towns or villages and painting in glowing colors the beatific state which would ensue if they had cycle factories flourishing in their midst. As a result much subsequent bickering and heartburnings are saved.

But such transactions have been put through in the past, and they not infrequently return to vex those responsible for their successful launching. The people of Hamilton, Ont., have such a case on hand. They have a fine new cycle factory almost completed and ready for occupancy; but the concern for which it was built, the National Cycle & Automobile Co., has been acquired by its rival, the Canada Cycle & Motor Co., and there is the greatest probability that the factory will never be occupied.

The matter is up for an airing in the courts in consequence of the National Co. having brought suit against Mayor Teetzel, John Patterson and J. J. Scott, Q. C., for \$14,500, claimed as the balance due on the amount which these three gentlemen undertook to raise, partly for a cash gift and partly for an advance on the cost of a new factory in Hamilton. Although this trio, and with them the thirty or more citizens who contributed toward the cycle factory inducement fund, have been in doubt for some time as to what was to be the result of their enterprise, the action of the cycle company in taking the initiative in the matter of litigation was considerable of a surprise to them.

About a year ago an arrangement was made with the cycle company to build and operate a factory in Hamilton. It was expected to prove a great boon to the city, as the company was to employ three or four hundred hands, with a prospect of an increase to six or seven hundred as the plans for the extension of the business developed.

Mayor Teetzel and Messrs. Patterson and Scott undertook to raise a fund of \$5,000, which would be a cash gift to the company from public spirited citizens to defray the expenses of moving and installing machinery, and an additional fund of about \$25,000 for the construction of a factory. This latter sum was to be a lien at a low rate of interest on the factory and returnable to the subscribers at the end of a term of years. The company was to commence operating the factory by August 1, this year.

The total amount required was found to be about \$34,000, and of this amount about \$19,500 has been paid over by the Hamilton people, but of late the latter have been in doubt as to the intention of the company to keep their part of the bargain. Over four months have elapsed since the first of August, and, although the building has been completed most of that time, for the last two months the company has shown no disposition either to finish the building or to establish its factory in Hamilton.

It is alleged that the large factory erected has been paid for in part by the Hamilton subscribers' money, and that the National Co. has failed to expend any of its money on the concern. Many liens have been registered against the factory by contractors, and during the last month the Hamilton men interested have endeavored repeatedly, but in vain, to get the company to declare its intentions regarding the factory.

The three gentlemen against whom the writ for \$14,500 has been issued will fight the action on the ground that the financial position of the National Company was misrepresented at the time the bargain was made, and that the company has not carried out its part of the contract by establishing a factory in Hamilton, and has no intention to perform that most essential term of the arrangement. Repayment of the money already paid will also be claimed.

Valve from New Bedford.

Roland C. Hilton, of New Bedford, Mass., is the inventor of a new tire valve which is now being manufactured and placed on the market.

The principal features of the valve appear to be an automatic plunger and a non-detachable nipple. When the valve is closed, says the description, the plunger is locked and the air channel is closed, so that no dust can possibly enter it. When the nipple is unscrewed the plunger is released and the air from a pump is admitted. The plunger works automatically, of course, and the valve is made to fit a universal pump nipple.

Coaster-Brakes for Military Use.

It is a dull day, indeed, when some new advantage or benefit of the coaster-brake is not discovered. Lieutenant-Colonel Crompton, who was with the British forces in South Africa, is the most recent discoverer. He found that wheels with coaster-brakes had an advantage for military cyclists, as, sitting upon a machine that did not for the moment or two require pedalling, the rider would be able to take a much steadier aim with a revolver.

Goodyear and the Jobber.

Speaking of the jobber in their catalogue for 1901, the Goodyear Tire & Rubber Co. state their attitude in this wise: "Our policy will be, as heretofore, to treat good, live jobbers as our allies in the business; their prosperity means our profit."

WHAT IS WANTED

One of the Simple Features of the Motorcycle that Remains Unremedied.

"Why don't manufacturers turn out mufflers that muffle?" said A. L. Banker, of Pittsburg, repeating the *Bicycling World* man's query. "They can, and there is no reason in the world why they should not."

"The trouble is that they make the mufflers too flimsy. They are afraid of a few ounces of weight, forgetting that the disappearance of the noise would more than counterbalance these. The average muffler has no body, and instead of wondering why it reduces the noise so little the right way would be to wonder why it reduces it at all."

This opinion, coming from such a thoroughly practical man as Banker, evidently deserved more than passing attention; and the *Bicycling World* man determined to dissect a muffler at the first opportunity and see just how they were made.

In consequence of this resolve a call was shortly afterward made on the Fleming Mfg. Co. There P. G. Fleming was encountered and asked to take a muffler apart so that it could be seen just what it was made of. While this was being done he was asked the same question that Banker had answered so positively.

"Because they won't put enough stuff in them," he replied. "As a rule thin sheet steel or some other kind of very light metal is employed, and no other result could be looked for."

"If you go into a room with flimsy walls and make a big noise it will be heard almost as plainly outside of the walls as inside of them. But if you make them thick and solid very little noise can get out."

"It is the same way with a muffler. Now, here is ours. We use tubing—bicycle tubing—of about 10 gauge, or thereabouts, for it. This first tube is connected with the exhaust pipe of the motor, and into it goes the discharge of exploded gas. Here, you see, the tube is perforated with small holes, which permit the gas to pass into the second tube, which also has thick walls."

"By this time the noise is considerably reduced, and when the gas passes into the third or outside tube there is still less of it. From there it goes into the open air, and when it reaches it there is not enough sound left to do any harm."

"We could choke it off entirely, of course, but we have to be careful not to make the holes so small that the gas can't escape readily. As it is, there is not enough noise to be disagreeable, hardly enough to be noticeable."

"How much extra weight is there in this muffler?" he repeated. "Not more than half a pound, scarcely that. But who would object to that? It is nothing at all when the great weight of the motor is considered."

Before Ordering Your New Tires for **1901** See What They Say About the

MILWAUKEE TIRES

Single Tube



Pneumatic



Resilient



Easy Riding

Print registered 1899. Milwaukee Patent Puncture-Proof Tire Co.

PRESENTING NEW TESTIMONIALS EACH WEEK.

ALBANY HARDWARE & IRON CO.

Albany, N. Y., Nov. 10, 1900.

MILWAUKEE PATENT PUNCTURE-PROOF TIRE CO., Milwaukee, Wis.

GENTLEMEN:—Replying to your favor of recent date, would say that our experience with Milwaukee tires in the past season has been as the previous season. They have been very satisfactory, and we are particularly well pleased with the way you have handled our orders. Prompt and courteous treatment, and with an acknowledgment of our order, has always been the rule. We shall continue with them another season.

Yours truly,
ALBANY HARDWARE & IRON CO.
Per F.

R. R. STOBERT,
REAL ESTATE, LOANS AND FIRE INSURANCE.

Pratt City, Ala., Nov. 10, 1900.

MILWAUKEE PATENT PUNCTURE-PROOF TIRE CO., Milwaukee, Wis.

GENTLEMEN:—I purchased one pair of your Puncture-Proof Tires about two years ago. I have not spent as much as twenty-five cents on them yet, and I have ridden over some very rough roads. I can recommend them to any one that desires a strictly puncture-proof tire. They stand the test.

Very truly yours,
R. R. STOBERT.

Representatives Wanted.
Write for Prices and Other Information.

MILWAUKEE PATENT PUNCTURE-PROOF TIRE CO., MILWAUKEE, WIS.

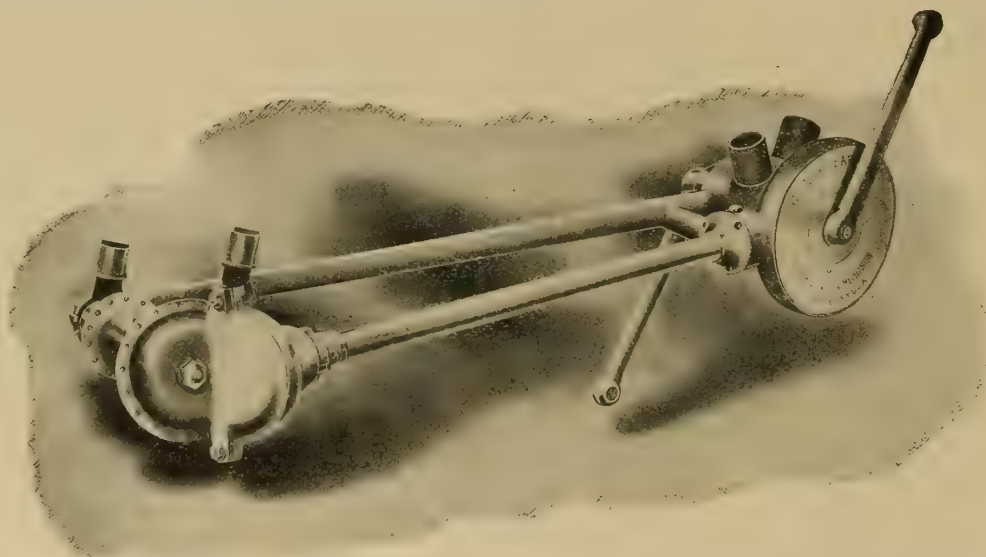
What does it mean?

More than a year has passed since the existing world's records from quarter-mile to the mile were established. The reduction in the mile record was the greatest ever known. These remarkable records are likely to stand for some time or certainly until a rider mounted on the the Sager Gear makes another onslaught. They illustrate in a practical sort of a way the efficiency of the Sager Gear.

No
Vibration

No
Grinding

No
Purring



They Run
Like Oil

.....

Adjusted
Like a
Ball
Bearing

It is these efficient, smooth running gears that are used in our Chainless Machines. As simple as a chain wheel, it may be taken apart and reassembled in a few minutes and **WITHOUT LOSING AN ADJUSTMENT.**

Send for our catalogue. Get posted on the newest and best. Any manufacturer can furnish it without inconvenience. We have arranged for that.

RIGGS-SPENCER COMPANY, Rochester, N. Y., U. S. A.

THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
"The Wheel" and the "American Cyclist."

Published Every Thursday

By

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General Agents: The American News Co., New York City and its branches

Change of advertisements is not guaranteed unless copy therefor is in hand on SATURDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, DECEMBER 20, 1900.

The Season's Sentiments.

Again comes the season of toys and turkey, of holly and mistletoe, of good cheer and good will—of the season when the spirit mellows and the good in man rises to the surface—the season when self is not uppermost and when the golden rule and the doctrines of bear and forbear, forgive and forget seem to pervade and perfume the very atmosphere, inciting us

To live for those who love us.

For those we know are true,

For the heaven that smiles above us,

And waits our coming too;

For the cause that lacks assistance,

For the wrongs that need resistance,

For the future in the distance,

For the good that we can do.

It is this sentiment—this feeling that is breathed when we utter "Merry Christmas."

With this issue the Bicycling World begins its twenty-fourth year. December 22 is its twenty-third "birthday." Nothing that now exists in cycledom, whether trade or sport, is of riper age. The Bicycling World might truly remark: We came first; all else came after and we believe its service and appearance fully demonstrate that "age has not withered nor custom staled."

Lightening of Chains.

At this stage of the game it is pretty safe to say that makers and designers are not taking any unnecessary risks.

Therefore, the fact that the one-eighth inch chain is to be found on more than one prominent make of machine next season is sufficient evidence that it will stand up.

In spite of this assurance, however, the innovation is a bit startling. A block one-eighth of an inch in width contains but a very small amount of metal, yet it has to withstand the tremendous strain that is put on it by forward and back pedalling; should it fail to do so, disaster inevitably follows.

The time was when three-sixteenth chains were viewed with considerable distrust. This was not altogether unmerited, for breakages were more frequent than was at all agreeable.

They were ascribed to various causes. Some held that the chains were too light for general use, while others insisted that poor material was really to blame. After events have proved that the latter view was the correct one, for the three-sixteenth size finally came into practically universal use.

The one-eighth widths have been in limited use for several years. They stood up well, and more than one chain maker asserted emphatically that no fear of trouble need be entertained should they be adopted for general use.

It is not likely that the time is ripe for the general adoption of this size chain even yet. But the introduction of one-eighth inch chains on some machines will be almost certain to be followed by a demand for them on others.

Tire Sizes and Vibration.

For a good many years a revival of the demand for larger tires has been anticipated, prophesied, worked for; but for some unaccountable reason all natural laws have been set at defiance and the revival has failed to materialize.

Small tires are undoubtedly responsible, to

a very considerable extent at least, for the excessive vibration now so generally complained of. In this case cause—small tires—and effect—vibration—have worked in parallel grooves. Yet there has been little effort to fix the responsibility and to apply the plain remedy.

Perhaps it will be said that riders do not want to apply the remedy. Such is the natural conclusion, and if this is really the case it is not for others to cavil at their decision.

But while this may be true of the majority of riders, there is a considerable minority entertaining different views. They do object to vibration, and are willing to go to some trouble to get rid of it. At present they are taking most interest in cushion frames, springs and other vibration absorbers. Tires, meanwhile, are little talked of, and it is probable that for another season at least there will be no change in their diameters.

At first thought one might look for larger tires to follow the cushion frame machines; for if the latter were good larger tires would make them still better.

This is not the view taken of it, however. The relief obtained through the cushion frame is deemed sufficient, and the rider rarely takes the next step.

It is probable, therefore, that any demand for larger tires will come from riders who do not want so much vibration, but have a prejudice against springs or cushions.

It will be brought home to them some day that larger tires will give the desired relief; and if when this thought presents itself vibration should be more pronounced than usual some action will result.

Sewing Machines and Bicycles.

From time immemorial, it has been the custom to trace, remark and discuss a distinct analogy between the bicycle and the sewing machine.

The cycle trade, we all have been assured, would follow or was following the path of the sewing machine industry.

This was designed to convey that, following a period of intense popularity and immense profit, the "bottom would fall out of the business," leaving many wrecks and but a few survivors who must perforce, content themselves with small prices, slender profits and constantly shrinking sales effected only by great effort; in short, it was argued that dry rot and commercial gangrene must set in and leave the trade limp and spiritless, if not lifeless—the game would cease to be worth even the drip of the candle.

While the analogy is not nearly so perfect as the prophets pictured, it is not to be denied that in some respects there does exist a similitude between the two industries. Both enjoyed periods of widespread and unbounded prosperity, followed by an equally severe shakedown of prices, profits and pretty much everything else. The gloom was too thick to be cut by an axe.

In the case of the sewing machine it was widely heralded that the demand had ceased; that the world had been supplied, and that the little business that remained could be cared for by one or two factories, and twice as many dealers. Then came the awakening and realization that sewing machines would always be used; that they would wear out, that unthought of improvements were possible; that the collapse of the boom was logical and inevitable, and served to healthily flush the channels of the trade.

If there is any doubt about the present position of the sewing machine, the figures just made public by the Singer Manufacturing Company must remove the last vestige. The capital of the corporation is \$10,000,000, on which capital dividends aggregating 100 per cent were declared during 1899. During the current year the dividends have amounted to 20 per cent, and it is now proposed to triple the capital stock and divide the 200 per cent stock increase among the present shareholders; on the increased capital it is believed that the 20 per cent dividend will still be maintained.

In the vernacular, this would be termed a "gold mine." Our reproduction of the figures will simply serve to show the warm glow of health that pervades an industry which is commonly supposed to have "gone to seed," and to which the cycle trade is so frequently likened.

The sewing machine, like the bicycle, has figured and still figures on the department store bargain counter; the policy of "trading in" and of instalment payments is a feature of the business, yet for all that, there was never a time when the trade was more healthy or when the best and highest priced machine was more in demand, and there is no longer question as to the permanency and profits of the business. It will and must endure as long as there is cloth to sew.

The cycle trade is but just entering upon the corresponding era of realization; it is awakening to the fact that the so-called "slump" was inevitable, and that it served to flush the channels of the trade and to wash out the weak and the evil; it is beginning to appreciate that there will be a de-

mand for bicycles so long as legs remain human appendages, and there are not wanting signs that it is the best bicycles that are slowly gaining the ascendancy, and that price is as gradually ceasing to be the dominating factor of the trade.

Levers Need Attention.

Improvements in motorcycles have not yet begun to march apace, probably because the latter are still new and the riding public has yet to make itself heard effectively.

A good place to begin these improvements is with the levers. It is true that these present a formidable appearance only to the novice, and that the experienced rider soon masters their intricacies and finds them to be a comparatively simple matter.

But there do not appear to be any insuperable mechanical obstacles in the way of vastly improving them, while the benefit of such action would be very great.

For example, why should there be two separate levers to regulate the mixture? At least one American concern performs this operation with one, and there is no reason why the custom should not be generally followed.

Not only are there too many levers, but they are in the wrong place. In years to come the practice of so constructing machines that the rider must take first one and then the other hand from the bars to regulate the various parts will be regarded as absurd.

The hands are needed for steering, and while extended use with motorcycles removes or minimises the danger of taking the hands off, this is none the less inconvenient.

The subject is an interesting one, and opens up many possibilities. It is pretty sure to receive attention before long.

Finding the Fillip.

In the search for new things—for the trade has about come to the conclusion that novelty is the fillip necessary to bring about the desired improvement—makers and designers are puzzled to know what will and what will not serve the desired purpose.

There are two classes of changes to be considered—the major and the minor.

The former are very elusive; they do not appear in response to the clapping of hands. But they would bring about the desired revival of interest, hence the great anxiety to find something that would radically change the appearance or the construction of the bicycle of to-day.

The minor changes will be very much more in evidence next season than for some years past. They will undoubtedly stimulate sales to some extent, freshening up the machines and adding a variety they have lacked of late.

But no matter how well these little changes may serve the desired end, they will not go far enough.

Furthermore, they will simply stimulate a desire for more and greater changes. Both trade and public will share in this desire, and it is greatly to be hoped that it can be gratified.

The burning question will then be, Can radical changes be made, and if so in what direction will they tend?

The frame is a part of the machine that will present itself as a likely place to start in. Already there is a movement among English makers to depart from the time-tested diamond design, substituting therefor a cross frame, claimed to be stronger as well as novel.

Can such a change be successfully made on this side of the water? It is possible, but reflection shows it to be improbable.

If the present frame were unsatisfactory, ungraceful or unscientific, a departure from its lines could easily be made. But nothing of the kind can be alleged against it. In fact, it is probable that any change made would meet with disapproval at the outset.

The public is plainly not averse to change within certain limitations; but it does not demand change for the sake of change, and it is extremely doubtful whether it would accept anything radical unless it were plainly an improvement.

When anything of the kind is evolved from the inventor's or designer's brain it will almost certainly find a ready welcome. But until that time it will be the part of wisdom to proceed along the present approved lines.

What of the Candle Lamp.

Is it possible that candle lamps are due for even the smallest measure of popularity?

Off-hand, the candle seems such a relic of the past that nothing appears more remote, but the fact that the two most conspicuous cycle lamp makers in Great Britain have thought it worth while to make and market candle-burners is not without significance.

Incidentally, when the subject was recently remarked here we heard two good American cyclists of a party of three say a word in favor of that manner of lamp—a fact that is also suggestive.

HISTORIC INVENTIONS

Particulars of the Early Patents that Led Up to the Bicycle.

One of the most interesting trade publications that has crossed the water in a long time is entitled "The History of the Clincher Tire and Rim." It is not only interesting, but far more attractive than the average print that issues from Great Britain.

It is the catalogue of a big house, the North British Rubber Co., of Edinburgh, Scotland, and, apart from the matter devoted to the Clincher tire, it digs up more information concerning several famous patents than has yet seen the light. The matter is well worth reproduction.

FRANCIS MOORE FORESAW MOTOR VEHICLES.

Up to the middle of the eighteenth century, says the publication, road carriages and other vehicles were drawn by animal power, and we cannot find any trace of mechanical means of propulsion or draught until 1769, when Francis Moore obtained a patent (No. 921, March 14, 1769) for an auxiliary assistance to horse or man in the shape of "machines or engines, made of wood, iron, brass, copper or other metal, to be wrought or put in motion by fire, water or air, with a small assistance of horses or manual labor, which will be very useful in agriculture, carriage of persons, goods and navigation, by causing ships, boats, barges and other vessels to proceed with more swiftness." No specifications were enrolled with this patent, and we are left in the dark as to what were the details of the invention that put the conveyance "in motion by fire, water, or air," either on land or water.

GODFREY'S BALL BEARING, 1796.

The next invention in which mechanical means are used to assist the animal drawing the vehicle is Samuel Godfrey's (Patent No. 2,103, April 6, 1796). A reading of the specifications leads one to suppose that it was of a complicated character, but the interesting point in the invention is that it is the first recorded description of an adjustable ball bearing. He says: "The axes of all the gearing are provided at the ends with balls, which rest in hollow cylinders forming the bearings of such axes, the position of such cylinders being regulated by means of screws." This information would probably have been of some interest to the litigants in the expensive Patent law action, in the early nineties, of Bown vs. Centaur Cycle Company, over the alleged infringement of "Bown's patent adjustable ball bearings."

STEAM CARRIAGE PATENTED IN 1802.

The first record of a steam carriage is the invention of Richard Trevithick and Andrew Vivian (Patent No. 2,599, March 24, 1802). Another patent in 1806 was granted to John William Lloyd for "anti-friction rollers or wheels, to assist all sorts of carriage wheels." In this invention, instead of

the wheels of a carriage revolving on fixed axletrees, as customary, the axles are so arranged as to revolve with and bear between anti-friction rollers or wheels, which the patentee recommends to be made as nearly one-half the size of the bearing wheels of the carriage as may be convenient.

DENIS JOHNSON'S PEDESTRIAN CURRICLE.

Denis Johnson on December 22, 1818 (No. 4,321) patented "a machine for the purpose of diminishing the labor and fatigue of persons in walking and enabling them at the same time to use greater speed," and which the patentee "intends to denominate the pedestrian curricule."

The machine which forms the subject of this patent consists in the first place of a beam of wood or metal, which is made of sufficient strength to bear the weight of any person who may propose to use it, this beam being mounted horizontally upon two light wheels, one below the front and the other below the hinder part of the beam, the hinder wheel merely revolving on its own axis, but the front wheel not merely revolving on its own axis, but also having "a motion for turning the carriage by a pivot or axle passing through the beam." A saddle-tree or seat is mounted above the beam, being supported by screws which pass through the beam, each screw being provided with two nuts, one above and one below the beam, these nuts serving to adjust the height of the saddle from the beam. The person proposing to use the machine sits astride of the saddle, and works the machine forward by pressing first one foot and then the other backward against the ground, while at the same time he leans forward and rests his elbows upon a cushion provided for them, and guides the machine by means of a handle connected with the axis of the front wheel of the machine. The beam may be curved downward at the part that receives the saddle. Although he named this machine the "Pedestrian Curricule," we know it to-day as the "hobby-horse," the forerunner of the velocipede.

FIRST PEDAL-PROPELLED "LAND CARRIAGE."

This brings us to the epoch of the velocipede and steam carriage, as it was two years and a half later, namely, June 23, 1821, that Frederic Mighells Van Heythuysen obtained a patent for propelling carriages. The patentee says: "My invention consists in treading round the axle-tree or spindle, into which is fixed the road wheels of a carriage or paddles of a boat, barge or other small vessel. When applied to a land carriage four arms or more are fixed cross-ways upon the axle-tree, and so placed that the heels of the right and left feet may alternately tread them down, and consequently turn the axle-tree and impel the road wheels forward, by which means the weight of the body becomes a propelling rotary power." This is the first record we can find of human pedal propulsion of a road carriage. No drawings were filed with this patent, and we are not informed how many

wheels were used or how the steering of the machine was operated.

METCALFE'S EARLY TRICYCLE.

There were two or three patents obtained shortly after 1821 for propelling carriages on common roads by means of crutches or feet, similar to walking, actuated by manual and mechanical powers, and many inventions for steam carriages about this time. The next invention that is interesting to cyclists is Thomas Metcalfe's (No. 10,595, April 7, 1845), for velocipedes. This velocipede was mounted on three wheels, the single wheel in front being also used for steering. This wheel was carried in a fork, and was provided with springs. It was worked by a hand lever in the ordinary way. The propulsion was effected by means of a tread wheel, the footboards of which were to slide radially, so as to increase or decrease leverage. The propelling power was communicated to the wheels by means of pitch chains and pulleys or by toothed gearing. Speed could be varied by changing the gearing, and a brake was fitted to one of the pulleys, which could be made to act by the hand or by the foot. The velocipede appears to have been constructed to carry two persons.

SMITH INTRODUCED METAL SPOKES, 1845.

Thomas Smith's invention (No. 10,717, June 11, 1845) is for "improvements in suspending carriages, and in the construction of wheels for carriages." Embodied in the specifications of this invention is an arrangement for using spokes of metal, and it is the first record of a metal spoke formed with a screw at each end. The felloe is described as being of metal bent into a troughlike form, the open part being outward and being filled with pieces of wood and surrounded by a tire, the arrangement being such that the spokes are screwed both into the felloe and tire and also into the boss or nave of the wheel.

THOMSON'S PATENT ON PNEUMATIC TIRES.

Up to this period we cannot find any trace of wheel tires being made of any other material than wood or metal, and the first departure of tireing a carriage wheel for common roads with any other material was Robert William Thomson's (Patent No. 10,990, December 10, 1845) for elastic tires. This invention has had a very important bearing on cycling of to-day, as it is an invention for a pneumatic tire, and is alleged to anticipate Dunlop's patent—the invention which in 1890 was thought to be the first invention for a pneumatic tire.

The following are extracts from Thomson's specifications: This invention consists in fitting wheels with tires made of some elastic material and inflated with air. The tire and felloe "are made much broader than usual, and project considerably at both sides beyond the supporting spokes." "The elastic belt is made as follows: A number of folds of canvas saturated and covered on both sides with india-rubber or gutta-percha in a state of solution are laid one upon the other, and each fold connected to the one

immediately below it by a solution of india-rubber or gutta-percha, or other suitable cement. The belt thus formed is then sulphurized by immersion in melted sulphur or exposure to the fumes of burning sulphur, which renders it more pliable and prevents it getting stiff on exposure to cold; or the belt may be made of a single thickness of india-rubber or gutta-percha, in a sheet state and sulphurized, as aforesaid, and then inclosed in a canvas cover. A strong outer casing in which to hold the elastic belt is then built up (so to speak) around the tire by rivetting together a series of circular segments of leather and bolting them to the tire. The segments at two of their edges are made to overlap each other, as shown, and then secured in their place by passing bolts through the tire and felly and making them fast by nuts. The elastic belt is then laid upon the portion of the segment thus made fast to the tire and secured in its place by bringing the two remaining, and as yet unjoined, edges of the segments together over the casing, and connecting them together by rivets. A pipe through which to inflate the elastic belt with air is passed at one place through the tire of the wheel, and fitted with an airtight screw cap. If the elastic belt was first stuffed with horse-hair or sponge, or other elastic materials, and then inflated by blowing air to a high degree of tension, the belt would be less

liable to be cut by concussion between the tire of the wheel and the roadway. Instead also of the elastic belt being made in either of the modes aforesaid, it might be formed of a number of separate tubes, of smaller dimensions, clustered together and inclosed within a leather covering. Any undue displacement of the air at the bearing points of the wheel may be prevented by tying the tubes across at distances of two or three feet apart, so that each tube shall be divided into a number of separate airtight compartments. Or instead of any of the preceding modes of construction, the belt may be formed of separate and distinct sections, each section having its own air-pipe."

The cycling trade and public believed that Dunlop's patent for the pneumatic tire was the first invention of a tire inflated by air under compression, until the cycling journal "Sport and Play" startled the cycling world by publishing Thomson's patent of 1845 side by side with that of Dunlop's of 1889. It was at once recognized that the monopoly of the pneumatic tire could not be claimed by Dunlop; in fact, A. T. Thomas, of America, on March 12, 1889, four days later than Dunlop, filed specifications in America for a pneumatic tire to be undetachably held to the rim.

"Prospects are very flattering for 1901," writes the Abbott Cycle Co., of New Orleans.

Completeness of the Miami's Line.

It will be difficult, if not impossible, to find a more complete line than the Miami Cycle & Mfg. Co., of Middletown, Ohio, is offering to dealers for the 1901 season. It includes about everything for which a demand is likely to arise on the part of man, woman or child.

Judge for yourself: Racycle Pacemaker, \$60; Racycle Racer, \$52.50; Racycle Roadster, \$50; Racycle ladies', \$45; Racycle Roadster, \$40; Racycle men's cushion, \$55; Racycle ladies' cushion, \$55; chainless bevel gear, \$75; men's bicycle, \$25; ladies' bicycle, \$25; also juveniles at \$20, \$21.50, \$22.50, \$24, \$25 and \$26.50.

National Whets Curiosity.

The National Cycle Mfg. Co., of Bay City, Mich., has finally announced its prices, as follows: Roadster, \$40; light roadster, \$50; chain-gear cushion frame, \$50; racer, \$60; rigid frame chainless, \$65; cushion frame chainless, \$75.

The details of the National chainless are not yet public property, but the National people are whetting curiosity by heralding it as "unlike any other chainless." "It is our own design," they say, "and we make it ourselves."

Tubes enamelled inside as well as outside are advertised by the English makers of a bicycle with mechanical joints.

THE GENUINE PERSONS.



THE WOODS ARE FULL OF COUNTERFEITS.



THE PERSONS MFG. CO., WORCESTER, MASS.

ABOUT FORK BREAKAGES

A Complaint and a Commendation from Far-off Australia.

Inasmuch as fork breakages usually entail consequences of the most disastrous kind, they are more talked about than anything else. The further fact that the greatest shocks are concentrated at this point accounts for their being more frequent than any other breakages.

For these reasons some makers take the greatest precautions against such accidents, and are generally successful in reducing them to a minimum. Others, however, go but half way, and while putting plenty of metal in the fork crown and stem, use an unduly light gauge of tubing for the sides. For these and other reasons the crop of accidents is still greater than it should be, considering the knowledge now possessed by makers and designers on the subject.

Touching upon this subject, an Australian repair man recites some of the troubles experienced in that far-off land, and incidentally bears testimony to the general excellence of machines of American manufacture.

The breakage of front forks is unfortunately of rather frequent occurrence, owing to their being the part of a bicycle which is called upon to stand a great strain, easily traced in a great many instances to the carelessness of the riders, especially with beginners, he says.

They never seem satisfied with their ability to ride until they have run into something or other. The forks may not break at the time, but be damaged so much that they will eventually break, so that after an accident of any sort it is advisable to examine the forks thoroughly, for when they break the rider is powerless to save himself.

Forks generally break below or immediately above the crown. It is a very weak part in a great number of machines, especially of the cheaper make. The fork sides are very thin, and the crown in some instances heavy, so that in brazing, unless great care is taken, the sides become overheated before the crown is hot enough to braze properly. When the fork blades are rather straight and the same diameter from top to bottom the weakest part is just below the crown.

Builders often put in 3-inch liners—that is, pieces of tubing down the fork sides. This helps to strengthen them. The American machines are generally stronger in this respect, owing to most of them having fork sides of large diameter near the crown and tapering toward the ends, so that they are strongest on the part that has the strain.

Comparing the general makes of cycles, the forks are too thin altogether for the rough roads of this country, and the builders are now using heavy fork sides. The down tube or stem of the fork is also in a great many cases too thin, which causes them to break above the crown; in fact, they should

be almost double their present thickness to be safe. Riders should see that the forks are properly adjusted, otherwise the latter will be called upon to stand a greater strain than usual.

There have been a large number of bicycles imported into this colony which the makers would not dare to sell in their own towns; but the importers, for the most part, not knowing anything about the machines, and they were quoted at a low price, and had a toolbag and pump given in, bought them. Some of these bicycles bring good prices, but as soon as they are sold trouble begins, the buyers often turning up every other day for repairs.

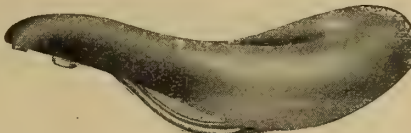
The public generally will be better supplied in future. The colonial builders now have the pick of the best English and American parts to choose from, and the home makers' agents understand what is wanted in the colonies.

Why the Oak is Spreading.

Although among the newer comers, there is no doubt that the Oak saddles have gained ground steadily during the last two years; that they will gain more of it during 1901



the addition to the Newark Cycle Specialty Co.'s staff of those veterans, Roger Enright and W. A. Neff, makes certain.



The accompanying illustrations show two of the saddles they are showing to the trade, and better saddles, the Messrs. Meisellbach, the heads of the Newark concern, assert, are not to be found anywhere.

The Newark people know their book and have an equipment of automatic saddle making machinery of which they are particularly proud, and which they claim is a distinct advance over anything in use elsewhere; they give it as one of the reasons why they are able to do so well, not only in the matter of price, but of quality as well.

Indispensable in Soldering.

Soldering fluid is prepared by dropping small pieces of scrap zinc into hydrochloric acid, also known as muriatic acid, and as spirits of salts, the kind known as "commercial" being sufficiently pure for ordinary work; immediately the zinc comes in contact with the acid violent ebullition ensues, and the poisonous fumes of hydrogen given off, so that the operation should be conducted in a wide-mouthed glass or glazed earthenware vessel placed in the open air.

AS TO SIDELINES

What the Dealer Wants and What there is to Choose From.

Probably nine out of ten dealers will assent to the proposition that they must have remunerative sidelines or perish; yet many of them fail to act on this theory, and if brought to book for their remissness allege the difficulty of finding suitable articles.

For it is a fact that the most likely sidelines are frequently of a nature to find their best sale during the summer, which is just the time they are least needed. It is during the winter that the dealer has time and space on his hands, and anything that promises results then is most likely to receive attention from him.

This fact is dwelt upon by a writer in a British paper in pointing out why more dealers do not push sidelines.

In strict truth, he says, what the cycle agent requires is not sidelines so much as a winter trade. From the beginning of February to the end of September his trade in cycles absorbs all his attention. If it does not, then it is not right to devote his energies to it; he must run sidelines in other goods or make his cycles a sideline. If it does, he is risking his customers' dissatisfaction and consequent loss of trade by attempting to handle other goods as well, unless his trade in these is sufficient to warrant his making them a complete and separate department.

What the average cycle retailer wants is some lines of trade which come into full force about the beginning of November and go out about the end of January—and that is what no writer or trader in all our acquaintance has been able to discover.

Remunerative winter trades are, generally speaking, specialties which are either precariously dependent on the nature of the weather or require expert knowledge to handle. What is not included in those lists does not leave much that is really profitable to invest capital in—such as Christmas cards, novelties and toys. Some agents have managed to extract a little revenue out of those things, but they have been the exception, not the rule.

Among the articles which one can select as suitable to the average cycle agent's limits are typewriters, phonographs, guns and ammunition, safes, photographic apparatus, lamps, stoves and incandescent gas fittings, domestic machines such as mangles, perambulators, washing and wringing machines, and the various ingenious American novelties which reach us in a never-ending stream, and waterproof goods. Such things as skates are mere gambles if one desires to buy them remuneratively.

The energetic man will find in that list something, no doubt, that can prevent business rust appearing on him owing to winter sloth; but some among them, such as photographic apparatus and the domestic goods, really require all-the-year-round handling, and must in consequence be strictly regarded as sidelines.

... NATIONALS FOR 1901 ...

Cushion Frame Chainless, \$75.
Rigid Frame Chainless, 65.
Racer, 60.

Light Roadster, . . . \$50
Cushion Frame Chain, 50
Full Roadster, . . . 40



There is no chainless on the market as simple, as satisfactory or as attractive as the National. There is none other like it.

IT'S ALL OUR OWN DESIGN,
AND WE MAKE IT OURSELVES.

THERE ARE NO SMALL BOLTS OR NUTS OR SCREWS
TO WORK LOOSE.



THE ONLY TOOL NEEDED WITH A CHAINLESS NATIONAL.

If you want something different to talk about than your competitor has, take up the National for 1901.

 National Bicycles are not made by a Trust.

NATIONAL CYCLE MFG. CO., BAY CITY, MICH.

A RIDER'S TRIBUTE TO THE PIERCE CHAINLESS

New Britain, Conn., Oct. 22, 1900

The George N. Pierce Co.,
Buffalo, N. Y.

Gentlemen:—

Having ridden a PIERCE Chainless Cushion Frame wheel for the past several months, I beg permission to say a few words in its praise, even though I am aware I cannot find words that will express its merits.

I have given the wheel a most thorough test, through the country as well as around the suburbs, and have tried and tested its sterling qualities on the hills as well as on the level roads, and can truly say there is no wheel on the market that is more easy running than a PIERCE CHAINLESS.

A word about the Cushion Frame—I do not think I could get along without it.

As to the neat appearing and easy running qualities of the PIERCE CHAINLESS, I am frank to say, it has yet to find its rival.

Allow me to congratulate you upon your efforts in placing such a wheel upon the market. It is a credit to the person who rides it as well as an honor to the concern who built it. I trust you may enjoy the success that you deserve. With my best wishes I beg to remain

(Signed).

Yours respectfully,
A. ALEX. JOHNSON.

MOTOCYCLE DEVELOPEMENT

What the English Cycle Shows Brought to Light in this Direction.

London, Nov. 28.—Without the motor cars the National Show this year would have been very poor, and as this is the case it is the more extraordinary that so few motorcycles are on view, and that, of the small number to be seen, so few are altered from the usual patterns. Indeed, practically no originality in design is apparent, and it is only in a very few minor details that improvements have been attempted. It would really seem that the English cycle makers have not yet seriously taken to the manufacture of motorcycles.

The greatest novelty in this line is the Singer motor bicycle, which is decidedly an advance. This machine was recently illustrated in the *Bicycling World*, so that its lines are generally known. The motor is placed within the driving wheel, which may be either the front or the rear one, although practice and opinion seem to point to the conclusion that the latter position is to be preferred, if only on account of the saving in side-slip. From the illustrations of the machine which have appeared the exact nature of the motor is not apparent, and even after a glance at the machine as it stood upon the company's stand at the National Show a few people went away under the belief that the motor revolved with the wheel. Of course it does not do so, but is carried on a fixed spindle. The wheel is made of two concave discs, cut away in places for the sake of lightness and for cooling purposes, which are bolted together at the rim. Each of these discs runs upon a ball bearing on the spindle, but they are not connected at the hub, so that the stationary spindle is visible, and carries the motor. One of the discs is provided with an internally toothed ring with which the pinion wheel on the motor shaft is in gear. Of course the word "spindle" is hardly correct in the case of the motor, because the crank chamber forms a portion of the spindle, after the manner in which the gear-box is applied to motor tricycles. The motor is controlled by one lever only, although it may sometimes be necessary to slightly alter the mixture, which can only be done when the rider is off the machine. But, as a matter of fact, there is a somewhat automatic method of obtaining the correct amount of gas and air, so that it is seldom necessary to alter the adjustment. The handle controlling the motor is on the left side of the handle bar, and takes the place of the ordinary brake lever. It performs two distinct functions. When pulled partially up it closes the throttle valve and so stops the motor, but if raised still further it lifts the exhaust valve, and then the machine may easily be ridden by pedalling only. The great beauty is the simplicity. To start the machine the rider

pulls up the lever and mounts in the ordinary way. Having got the machine in motion, he slowly lowers the lever, thus closing the exhaust valve, and opening the throttle. The motor then begins to drive at once. Anybody who can ride a safety can get on the Singer motor bicycle and ride it at once. It steers most excellently. The Singer Co. also fit the same motor to the front wheel of a tricycle for those riders who prefer the three wheeler. I think that there will be a large sale for these cycles during the coming season.

The only other safety motor bicycle which I have come across at the National Show up to the time of writing is the "Minerva," a machine on which a small motor of only 1 h. p. is attached to the lower front tube. This drives onto a V-pulley, which is clipped to the spokes of the driving wheel, and the transmission is done by a round belt. The motor and all accessories are offered for sale separately, but it seems most unsafe to place such a device upon the frame of an ordinary safety. The weight is very considerable, and I think that few machines are sufficiently strong to withstand the strain. Moreover, the method of attaching the driving pulley to the spokes of the rear wheel does not appear to me to be a very mechanical one, and certainly tension wheels are not calculated to withstand strains of the class involved by pulling upon the spokes.

The Progress Cycle Co., who seem to have devoted more attention to the construction of light motors than many firms, exhibited a quad, in which they have an attachment for combining the ordinary movement of the lever opening the compression tap with the further action of raising the exhaust valve. The first quarter turn of the ordinary lever opens the tap, and the next movement closes the same, but fully opens the exhaust. This is a neat plan, and saves an extra lever.

Allday's "motor-quad-cum-car" is a small vehicle, really a quad, but provided with two speed gear, and with a raised floor in place of the pedals. A starting handle is provided, and the small vehicle has wheel steering. A good many motocyclists who have been riding quads during the past year seem to be much taken by this vehicle, and it may meet with a ready sale.

A somewhat similar type was exhibited at the Stanley Show by the Enfield Cycle Co., Ltd. In this the steering is of the handle-bar type, the steering-post passing down the usual socket. A floor is provided, and an excellent arrangement of water tanks is fitted. Clutch gearing is employed on this machine, the necessary movement being accomplished by means of a chain passing from a hand wheel on the right of the driver.

There is evidently a tendency to provide better accommodation for the feet of the rear rider of a quad, and several plans are adopted. In most cases a small board is placed where it is just cleared by the pedals, but in others this is continued all round the rider, except at the back. Humber & Co., Ltd., exhibited a machine fitted in this latter

style, and very nice it looked. Naturally the same firm show the more ordinary type of quad as well, but I think that next year most riders will require a more comfortable rest than is obtained by the use of the ordinary free-wheel pedals.

It is curious to note that at present very few of the quads and tricycles at either show have the free wheel clutches fitted on the main axle. Most manufacturers still adhere to the crank-axle as the place for the clutch, notwithstanding that the main axle offers the advantages of a stationary chain, and practically removes the possibility of dirt entering the gear box. When the trade in motorcycles becomes more general this defect will, I opine, be very speedily remedied.

In the matter of increasing the strength of the main axle of a motor tricycle, I saw one rather neat method adopted by a small manufacturer. He uses an ordinary closed-in axle, with the backstays spread to the ends, and in order to prevent all chance of sagging he attaches from the saddle-lug a light steel plate, which is bolted to the central gear box of the axle at its lower end. This should stay the axle quite as well as a brace below it, and the plate can also be employed to further support the rear end of the carburetor. The same maker has a spring fork which is suitable for motor tricycles, as it is stronger, and, moreover, should any part break there is no fear of a fall, as the remainder of the fork is more than sufficient to carry the weight.

At the Stanley Show I have so far seen only one motor bicycle, this being a "Crypto" fitted with a small motor of 1 h. p., a miniature of Mr. Lawson's motor wheel. This machine has attracted some attention, but it does not, I think, equal a bicycle with the motor behind. On the other hand, the engine is more easily got at should anything happen to go amiss, which is a point for the consideration of the ordinary purchaser.

Candidly, the display of motorcycles at both shows is very disappointing, and, although a very great number of the exhibitors had machines of this class on view, yet it was painfully apparent that they were all built from assembled parts. It is certainly rather curious that none of the inventors of spring frames have turned their attention to the motorcycle, which lends itself much better to their ideas than does the pedal-driven safety. I expect that next year things will be different, for the motorcycle is certain to make great strides in popular favor during the coming season. Its only defect is excessive vibration, and this should be easily cured by a spring frame, while the loss of power which such a device usually entails would not be noticeable in the case of a motor.

Try Them, then Buy Them.

Free trials of the Singer motor bicycle were given at the National Show to all who wanted them, and a large number of orders are said to have been placed as a result.

Drawback Allowed by Uncle Sam.

Washington, D. C., December 15.—During the fiscal year of 1899 cycles and parts thereof were imported into the United States subject to drawback allowance of \$148 on an import value of \$332; during the fiscal year ending June 30, 1900, the value of the imports was \$2,367, and the drawback allowance \$1,043.02.

The quantity of steel billets imported during 1899 was 1,222,957 pounds, on which the drawback amounted to \$12,882.11; this year the quantity increased to 1,320,690, and the drawback allowance to \$15,128.34. The quantity of steel tubing subject to drawback was 582 pounds, at a value of \$9,329 in 1899, on which the drawback allowance was \$2,453.11, and this year an increase is shown to 90,300 pounds, and the drawback allowance to \$1,020.75.

Among the articles exported on which drawback allowance was claimed during the last two fiscal years were the following:

Cycles: Chicago, 1899, 464, drawback, \$148; New York, 9,999, drawback, \$3,978.91; total, 1899, 10,463, drawback, \$4,126.91. In 1900: Chicago, 124, drawback, \$39.94. New York, 34,735, drawback, \$3,662.40. Total, 1900, 34,859, drawback, \$3,702.34.

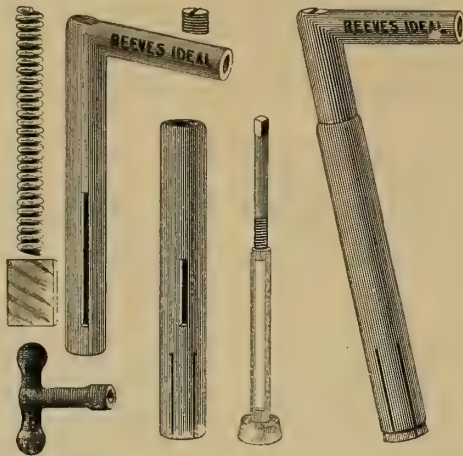
Pedals: From New York, in 1899, 6,000, drawback, \$49.89.

Tubing: From all ports in 1899, 570,313 pounds at \$9,140.56; in 1900, from all ports, 746,617 pounds at a total of \$11,393.92 drawback.

Parts of cycles: 1900, 1,481, on which drawback was \$47.01.

How this Spring Post is Sold.

With the increased and increasing interest in cushion frames, coaster brakes, chainless and other inventions designed to further the cyclist's comfort, it is reasonable to suppose that spring seat posts will obtain their share of the profit and popularity that is accumulating.



D. E. Orvis & Co., 71 East Genesee street, Buffalo, evidently appreciate the fact and mean to make the most of it. The fact that they have obtained the sole agency for this part of the country for Reeves's Ideal spring seat post is evidence of their faith.

The post is no stranger to the trade; it has been on the market for several seasons, but as designed for 1901 it justifies increased attention, being now made both with and without internal expanders. It is claimed to be

the only flush joint, noiseless and non-oscillating post on the market, and the only one that may be adjusted to any weight with an ordinary screwdriver without removing the post from the frame.

Strong proof of confidence in the post is the fact that it is not only warranted to work perfectly, but is guaranteed against breakage for one year; more than this, the purchase price will be returned if the post fails to prove satisfactory after three days trial. It is difficult to conceive what more could be asked or desired.

Bevel Gear Ignorance.

The usually well informed Cycle Trader is, apparently, in ignorance of the fact that bevel gears can be cut after hardening. In a lengthy editorial criticizing an English writer, who had the temerity to mention bevel gears favorably, it tears both the writer and the gears to pieces and demonstrates conclusively—to itself—that the latter are unmechanical and scarcely fit to use. All this is very sad—or would be if it were true. But it may be stated, for the Trader's information—it is a matter of common knowledge everywhere else—that bevel gears for cycles can be, and are, cut after hardening, that they are thoroughly mechanical and are in successful use on thousands of machines in this country.

It is now officially the Post & Lester Co., of Hartford, Conn., the application of the Cycle Supply Co. for a change of name having been granted last week.

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You as a Jobber cannot afford to print your catalogue without our electros. Confidential prices have been mailed to all our present customers. If you are not on our list, get on. A money-making proposition.

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THE FRANK E. BUNDY LAMP & SUNDRY CO.,

ELMIRA, N. Y.

WHAT WILSON SAYS

That Able Authority Points out some Features and Failings of Motorcycles.

If there is one part of the gasoline motor which seems to cry the loudest for immediate improvement, or simplification it is the sparking device; yet this is the point on which the greatest unanimity prevails among those who have set themselves the pleasing task of bringing the motor to perfection; and this unanimity is to the effect that the sparking device either cannot be improved or that it is about the most difficult problem of all, and that its solving will be postponed for some time.

What is thus asserted by so many people of different minds must perforce be true. But it is undeniable that the sparking apparatus is in sore need of attention, and the time may come when some genius will tackle the subject, cast tradition to the winds and evolve a system of sparking that will receive general approbation.

Touching on this important subject, that eminent authority, A. J. Wilson, says:

"The mania for slavishly copying the original French pattern has seized hold upon the trade to such an extent that all suggestions for improvement are treated with derision; but the more I ride the more am I convinced that the art of motocyling will never progress as it should unless a radical improvement is effected in this matter of spark provision.

"It is not as though there were insuperable obstacles in the way of reformation. Already at least one maker has succeeded in abolishing the wires along the top rail and through the handle-bar; while the latest pattern De Dion tricycle has its coil removed from the axle bridge to a protected position close above the sparking plug. Combining these two improvements will get rid of 80 per cent of the wiring.

"What is wanted now is for the contact breaker to be abolished from its present position down at the bottom of the motor, where its adjustment entails upon the rider the unpleasant task of grovelling among the filth of a muddy road, and then we shall not only reduce the liability to derangement of the sparking appliances, but shall make the task of investigating and remedying any such derangement a matter of ease and simplicity."

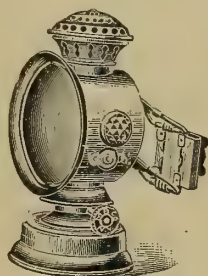
"I know that some experts have not much of an opinion of the future of motorcycles of any kind; but that is because their own motocyling experiences were unlucky, and because the plutocratic sybarite who owns a big car inevitably looks down scornfully upon the lowly and inexpensive motorcycle; but we cannot all be car owners, and there will be a big demand for motorcycles for many a year to come unless the manufacturers kill their goose by being in too great

a hurry to secure the golden eggs—in other words, increase the existing prejudice against the machines by selling large quantities of crudely designed and imperfectly constructed engines. Four years ago I wrote suggesting pedal-aided motorcycles; and such instruments have become accomplished facts. Four years hence, I predict, efficient motor bicycles and hugely improved motor tricycles and quads will be common objects of the highway, outnumbering cars and voiturettes combined, simply because people who can afford £50 to £100 are in such a vastly greater majority than people who can afford £200 to £2,000 for a carriage.

"But, apart from that all-sufficient reason, there is another factor which renders the

Low Priced Oil Lamp.

In addition to their Queen oil lamp—the one that "opens like a watch case"—and their well known Brilliant and Radiant gas lamps, the Manhattan Brass Co., of this city, are making and marketing for the 1901 sea-



son still another one—the "U. S.," shown by the accompanying illustration. It is a kerosene burner, is made entirely of brass, and, to use its makers' language, represents "the result of careful experiment and test to secure a perfect lamp at a low price."

motorcycle a favorite even with well-to-do people. This is that the motorcycle gives a certain amount of exercise; and if the machine be improved to such an extent that it can be depended upon to behave itself reasonably the exercise is of a most pleasant character, so that the riding of a motorcycle will appeal to many people who would not so keenly appreciate the driving of a car. The uses of the two vehicles are analogous to the case of riding on horseback and driving in a carriage; the one is a modified form of athleticism, the other quintessence of 'lolling in the lap of luxury;' and the sort of people who prefer horseback riding to 'carriage exercise' (sic) are the same sort of people as will prefer motocyling to motor car driving."

Wisconsin Comes East.

S. T. Heath, of the Wisconsin Wheel Works, is among the trade visitors now in New York. He seeks to establish metropolitan connections for that wealthy and progressive concern. The details of the Mitchell motor bicycle, which the Wisconsin people announced last week, will, he says, be forthcoming within the next week or so; he promises that they will be interesting.

MILLER ON DOUBLE-TUBES

Why that Type of Tire Lost Ground and How it will Regain it.

Commenting on the renewed and sharpened interest in double tube tires which now pervades the trade, W. B. Miller, secretary of the Diamond Rubber Co., gives the cheap single tube tire as the chief cause of the decline in the interest and demand of inner tube type.

market under four dollars, "says Mr. Miller

"As there has been no double tube on the market under \$4.00," says Mr. Miller, "the popular supposition has been that double tube tires could not be manufactured at a price low enough to compete with single tubes. The reawakening has been caused by the exploding of this supposition and the appearance of our double tube tire, which we assert is the equal of any single tube tire ever turned out."

"We feel that when the trade generally appreciates the features of our new tire," Mr. Miller adds, "it cannot fail of an enormous sale. The butt ended tube, which has been commonly used in double tube tires heretofore, brings the air pressure into the end of the tube, and the variation of the tube under working strain chafes it and causes explosions. In our tire our patented coupling and method of construction admits of a continuous air circulation, exactly as in the case of the single tube. This contributes to the resiliency, and makes the Diamond 1920 and the Waldorf-Astoria tire as resilient and as easy riding as any single tube ever turned out. More than this, the manner in which our inner tube may be repaired does not permit of its comparison with the butt ended tubes. The latter must be patched on the outside, where the patch is forever being chafed by the outer cover. In the Diamond the inner tube can be turned inside out and patched on the inside, where the patch should be and where it is permanent and out of harm's way.

Like Pawls and Ratchets.

English makers have gone in more extensively than ever for ratchet and pawl devices for "free wheel" or coaster brake mechanisms for next season's machines. Over here, on the contrary, roller and ball clutches quite hold their own, experience with them having been entirely satisfactory.

ELWELL CYCLE TOUR TO JAMAICA.

PARTY LEAVES PHILADELPHIA FEBRUARY 14.

For particulars, address

F. A. ELWELL, The Columbia, PORTLAND, ME.

Also European Tours Summer of 1901.

Secret of Chisel Making.

Nearly every mechanic thinks he knows all about the apparently simple thing of tempering a set of cold chisels, drills, etc.; yet how few can really say that, given a bar of tool steel, they can turn out a chisel which will stand for half an hour's solid slogging on cast or hard stuff.

More than half the tools sold in stores for chipping iron are useless as sent out. They are hard enough, but the continual jar causes either the corner of the chisel to fly off or else the whole width of the point bodily parts company with the shank.

An old repair man says he well remembers in his early career, when he had mastered all the difficulties of tempering lathe tools, drills, etc., he could never make a chisel to stand; if he got them hard enough the edges chipped off instead of the work after only a few minutes' use; yet a fellow-workman would punch away for a whole afternoon with only one or two visits to the stone, with seldom or never a broken point. How did he do it? was the question. And on this point he was only too reluctant to give information. Yet one afternoon he fell into a confidential mood.

The following was his secret, simple enough, but sufficient to make all the difference between a reliable tool and a waster only fit for the showman's case. To begin with, he laid special and extreme stress on the forging of the tool. After the first working down he was most careful not to touch the metal on the edge, and continued the hammering on the flat until the steel was well off the red.

Here, however, a pitfall awaits the novice. Beware of continuing the hammering too far. If the fatal blue is reached, goodbye; that set is done for. The grain will be crushed, and it will crumble away in use. Better stop too soon than too late. When the forging is completed rough up the tool either on the stone or with a file, and proceed to harden; the only secret in this is to take care to quench at the very lowest red at which the steel will become thoroughly hard; anything above this will only cause increased brittleness. Secondly, take care only to put about one-quarter of an inch of

the point in the water; any deeper is prone to cause the fracture of the whole point at the junction where the cold and hot portions meet in the trough.

Directly the heat is out of the point rub on a brick and let the temper run down until the yellow is merged into blue in patches, known among workmen as the "jay's wing." Given a bit of suitable stuff hardened at just the right heat, and treated as above, one has a tool that will stand "till the cows come home."

An Anti-Vibratory Bar.

In order to deal with excessive vibration at the handle bars an English inventor is about to market a spring bar of ingenious construction.

In it the handle bar proper is isolated from its stem by means of light leaf springs. At the top of the stem is a box guide in which fits a kind of sliding crosshead; to this crosshead is attached at one end the handle bar, while at the other it is pivotally connected with a link extending upward from a lug on the handle bar stem. By this means the handle bar is free to rise and fall within the crosshead guide, its movement being controlled by the leaf springs top and bottom of it, which may be adjusted in thickness to suit different requirements. The handle bar may also be reversed so as to form either a dropped or upturned bar, and to accomplish this it is only necessary to uncouple the joint at the end of the link, take off the top of the crosshead guide and reverse the handle bar.

What Goodyear Offers.

The Goodyear Tire & Rubber Co.'s 1901 catalogue is out. It is a neat and well printed publication that deals with the Pathfinder, "the best tire that money can buy"; the Puncture Proof Pathfinder, "the tire a host of riders are looking for"; the "252," "the best medium priced roadster tire"; the Victory, the "fairest priced good tire on the market," the Tiptop and Ajax unguaranteed tires and the Goodyear detachable, "the tire that fits any rim"; nine pages of the catalogue are given to the last mentioned tire.

What Interchangeability Means.

Interchangeability is as easy of accomplishment and of as frequent occurrence with rough work as with fine work, contends one qualified to speak on the subject.

With the finest work produced by man it still never means absolute precision and identity, and none know it so well as those who measure most minutely and work most precisely. Interchangeability is merely a measure of the limit of accuracy in the parts which are to interchange. Make the limit wide enough and everything will interchange. The only thing, and it is not a little thing, which the modern manufacturer may boast of in connection with the interchangeability of parts is in the fixing of the limits and in the minuteness of their range.

The first aim of the modern methods is to produce cheaply and, therefore, rapidly. These methods have not been adopted, as is so frequently charged, on account of the scarcity of skilled labor, but because the highest skill, however plentiful, has been proved to be inadequate. The highest and most prolific development of human skill would not in the least promote a return to the old methods of individual production.

In all the operations pertaining to the production of interchangeable parts the skill formerly employed in directing or adjusting the cutting or abrading agent for each individual piece produced is now done away with, and improved facilities enable us to adjust cutting tools that will each do its part on many pieces, and the most responsible work is now the occasional readjustment of the cutters, for which the means are provided, and a constant alertness with gauges and test pieces and samples to keep the results within the assigned limits.

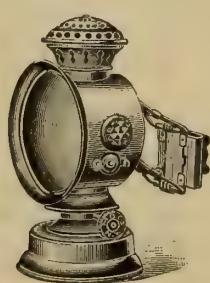
Rapid and profitable manufacture consists in producing articles very nearly alike, and then very narrow limits of variation guarantee complete interchangeability. Skill still dominates the work, and skill of a higher type than ever, but the skill is concentrated upon the responsible operations and in the situation where it is now made so essential.

It is estimated that there are 2,000,000 cycles in use in England.

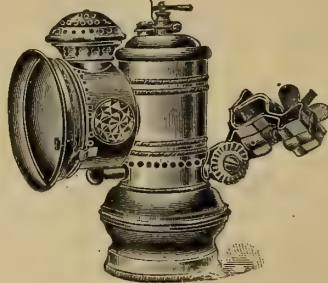
We Give No Chromos or Automobiles WITH OUR LAMPS; WE PUT FULL VALUE INTO THE LAMPS THEMSELVES.



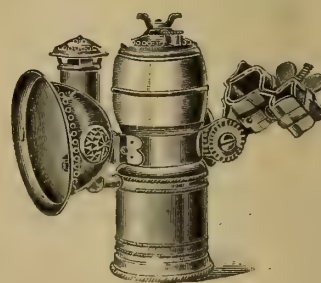
"QUEEN"—Oil.



"U. S."—Oil.



"BRILLIANT"—Gas.



"RADIANT"—Gas.

IF YOU WANT LAMPS OF THE SORT, WRITE FOR CATALOGUE AND PRICES.

MANHATTAN BRASS CO.,

332 E. 28th St., New York City.

WHY THE BEVEL GEAR

Powerful Arguments Brought to Bear by
Leland & Faulconer.

Wherever there is interest in chainless bicycles the Leland & Faulconer catalogue, which is now being distributed, is sure of a warm welcome; where there is no interest of the sort the catalogue will almost certainly arouse it.

The publication itself is of that refined and high class appearance that appeals to the eye, while its contents are of the clear, concise and not unpleasantly bombastic character that appeals to reason and rarely fails to leave a living impression. It details many phases of the bevel gear that are not generally appreciated, and tells its story and makes its arguments in a manner that cannot well fail of effect. Here, for instance, is the clear-as-crystal fashion in which the famous Detroit manufacturers discuss the much-threshed subject of chainless vs. chain bicycles:

"At the outset let us state that in presenting this comparison we do not attempt to defend the many unmechanical and altogether undesirable productions which have been termed 'chainless bicycle,' and which are largely responsible for a more or less general belief that has prevailed to the effect that the chainless bicycle is a failure. Most of these combinations merited the censure they received.

"Our comparison is with the simple, mechanical perfected bevel gear chainless which is a scientific production based on recognized, exacting mechanical laws. With this in mind, just note the difference.

"The chainless is the embodiment of simplicity; it uses four correct hardened gears to convey the power; the chain is the ideal representative of multiplicity; it consists of from 270 to 300 separate pieces. The teeth of correct gears roll together in perfect harmony. At each of the numerous joints of the chain the surface of one part slides on that of the other, producing constant wear.

"As the bicycle chain wears it grows longer; as the sprocket wheel (over which this chain runs) wears it grows smaller. The pitch of one increases; that of the other decreases; the change takes place in opposite directions; they work against each other. This makes trouble. With bevel gears the wear is so slight as to be hardly appreciable. The very slight wear which does take place, however, is in the same direction on both gears. If in extreme cases the gears should become worn enough to be noticeable, they can easily be adjusted closer together, and will then run smoothly.

"One-thousandth of an inch is pretty small. It does not take long for 'sliding friction' to wear each part of the chain down one-thousandth of an inch. As soon as it has done this the bicycle chain displays a trans-

formation; it is a quarter inch longer than it was before. If it was right when new it is a quarter inch too long now. It no longer fits the sprocket wheel. Then, too, it does not stop there—it goes right on wearing to the end. It gets worse and worse, causing constant annoyance. Riders who experience this trouble and contemplate the smooth action of accurate bevel gears realize forcibly that the gears have a decided advantage."

The manner in which the Detroiters portray the difference between their bevel gears and other of the kind is equally comprehensive. Hear them:

"Since it has been proven that bevel gears are best for driving chainless bicycles, the next point for consideration is, Which are the best bevel gears? Why is one type of bevel gear better than another?"



NEW YORK BRANCH: 214-216 WEST 47th ST.
BOSTON BRANCH: 80 BATTERYMARCH ST.
Near Fort Hill Square.

"The best bevel gears are manifestly those that run most smoothly; that can be propelled with the greatest ease and that will be most durable in service.

"To be concise, the difference between our gears and those of other manufacturers is this:

"Others make the gears practically right in shape at one stage of the process of manufacture, and then straightway proceed to do further work on them which is absolutely sure to change their shape and essential relations.

"We put our gears through every process to which they must be subjected before we form the teeth to the correct outline. The gear is turned, and bored, and milled, and carbonized, and hardened first. After having completed these operations, we take the gears to our generating department and put them through our special patented generating process, and form the teeth to exactly the correct theoretical contour and produce uniform spacing of the utmost precision,

"There is nothing further to do to the gear. It is ready for use. It is so hard it will not show any appreciable wear in a run of ten thousand miles, and it embodies every theoretical condition of a scientifically perfect gear. The most critical tests reveal its extreme accuracy.

"If we now should take one of these same completed perfect gears and put it through the fire (as other manufacturers are obliged to do with their otherwise finished gears) we should change its shape, and disturb the relations which combine to make it run perfectly. We would really spoil the gear.

"This is the secret of the superiority of our gears: We pass the danger points—first; we do the all-important thing—last. When we have once perfected the gears we leave them in that perfect condition."

An Example Worth Following.

When the boom was on factories of all kinds were utilized to turn out bicycles. With the slump the tide began to turn, and ever since these factories have been returning to their first loves, either wholly or in part. This action frequently results in an annual return of profits instead of losses.

Such has been the experience of a German cycle factory, which paid no dividend last year, but declares 8 per cent on the last season's trading. The concern in question, the Hercules Fahrradwerke, Nuremberg, has submitted a balance sheet which shows a clear profit of over \$30,000. The firm used its automatic machinery to turn out other useful articles as soon as cycle work began to lag, and the constant employment of their power and staff has brought them these results.

Pumps for Propulsion.

One of the "freaks" at the English show was a machine with auxiliary driving power. In this device the momentum of the cycle when descending hills was used to operate two long oscillating pumps connected with cranks on either side of the front wheel axle. These pumps compressed air into the tubular members of the cycle from where it was stored. On ascending a hill the pumps could be made to act as power cylinders, and drive the front wheel by the energy of the compressed air stored in the tubular frame. Mechanism of a somewhat complicated nature was provided to put the pumps in and out of gear with the wheel, and to change their action from compressors to motors.

It is scarcely likely that the device will ever make any great stir in the world.

Getting Fresh News.

Good money is being spent on cablegrams to the New York dailies to give the startling information (?) that the British cycle trade has been losing money ever since the boom gave way to the slump; \$100,000,000 is said to have been lost since Hooley appeared in the game.

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from No. 1, Vol I.

The Motor World,
123-125 TRIBUNE BUILDING, NEW YORK.

The Retail Record.

CHANGES.

Leominster, Mass.—J. T. Burns, sold out.
Seattle, Wash.—H. Siegrist & Co., sold out.
Boyden, Ia.—Boyden Hardware Co., sold out.

Davis, I. T.—Jarbo, Woolley & Davis, sold out.

Greene, Ia.—D. R. Easton succeeds C. E. Shook.

Dakota City, Neb.—Grieble & Brayhill, sold out.

Waitsburg, Wash.—Macomber & McCann, sold out.

Plymouth, N. H.—J. T. Dole succeeds J. M. Kendall.

East Pepperell, Mass.—Kemp & Dunlap, dissolved.

Mapleton, Ia.—Carhart & Carhart succeed Carhart Bros.

Faribault, Minn.—F. D. Orne succeeds Thomas & Orne.

Danbury, Conn.—Hull Bros. Co. succeed Hull & Hoyt Co.

Morristown, Tenn.—J. L. Wood & Co. succeed J. L. Wood.

Smith Center, Kan.—E. S. Berger succeeds Wentworth & Co.

Glastonbury, Conn.—Harry E. Welles, erecting an addition.

Ravenna, Mich.—A. E. Burden succeeds E. E. Bartholomew.

Portsmouth, N. H.—W. W. McIntire, removed to High street.

Otterbein, Ind.—Hawkins & Hawkins succeed Hawkins & Ward.

Medford, Mass.—Charles H. Brown will remove to 464 Main street.

Bowling Green, Ky.—C. S. Atkinson & Co. have bought out James Smith.

Wilmington, N. C.—A. H. Yopp has purchased the business of H. H. Helms, 209 Market street.

FIRES.

May's Landing, N. J.—J. E. Stillies, insured.

Oneida, N. Y.—J. Van Horn, Madison street, slight damage.

NEW STORES.

Los Angeles, Cal.—James Morris, Spring street, between Sixth and Seventh.

The Week's Exports.

Exports of bicycles and cycle material from the port of New York for week ending December 18:

Antwerp—6 cases bicycle material, \$240.

Bermuda—23 cases bicycle material, \$523.

Buenos Ayres—23 cases bicycles and material, \$3,127.

Hamburg—13 cases bicycle material, \$1,069.

Recent Incorporation.

Ft. Wayne, Ind.—The Meyer Cycle Co., with \$5,000 capital. Directors, W. M. Meyer, C. F. Meyer and C. A. Meyer.

Veeder Rights in Court.

English rights to the Veeder cyclometer are in question in a suit up for decision in the Chancery Division, London, Eng., before Justice Joyce. The hearing is on the petition of A. W. Gamage, Ltd., the well known London accessory concern, for a rectification of the register of trade marks, the one in question being that of P. M. Justice, No. 19,835 of 1895.

Under this number and date, letters patent were granted to Justice as a concession from the Veeder Manufacturing Company.

Evidence of the novelty and utility of the patent was given by Professor James Swinburne, who said the invention was quite new to him, and he had seen nothing like it in prior specifications. It was a most compact instrument for the purpose of recording mileage.

In cross-examination it was stated that there was an action some time ago brought for infringement of this patent against Messrs. Gamage, but it was discontinued after particulars of objections were delivered. The hearing was adjourned.

Here's the really clever fashion in which the Iver Johnson people are announcing one of their new features: "We have made a change in the construction of the rear fork-ends our new machines, which is quite an improvement. 'Major' Taylor has been doing his best to acquaint other riders with the new features, for he gives them all a chance to see this part of his machine as they follow him over the tape. One of the last of the racing men to have an opportunity of this kind was 'Tom' Cooper, who met Taylor and defeat in a match race at Madison Square Garden during the six day grind—the colored wonder showing the way in two straight heats."

Colors in Tires.

Red is the color of a third grade tire that is being brought out in England by the Clincher people, and objection is being made to it on the ground that it brands the user of a red tire as a "cheap" rider.

It is even contended that the color scheme should be made to work the other way, the highest priced articles having a special color; then riders would be glad to attract notice, serenely conscious that they—or their tires, at least—bore the hall mark of the highest respectability.

Over here the employment of colors is not new. Even in the days of the high wheel and solid tires the latter were artificially colored. Pink was the usual color, but red and black were also employed by some makers.

With pneumatic tires the same remark holds good. The Victor people always had a fondness for red—even their famous cushion tire, in the early nineties, being of that color—and the new Victors will be distinguished in the same way. The Overman Co. also furnished pink tires when they were called for, but always had a preference for the red, it having come to be recognized as their particular color.

The American Humber people used two colors in the same tire, a strip of some bright color running around the tire near the tread. They had this design copyrighted, and it was this alone that prevented other makers from copying it, the contrast between the two colors being very taking.

Work on motorcycles which was in progress at the Reading (Pa.) plant of the American Bicycle Co. has been discontinued, it having been decided to confine such work to the Lozier plant at Cleveland, O.

If experience is the best teacher—and it is—then our experience of

58 YEARS

in making all sorts of bells for all sorts of people,

OUGHT TO CONVINCE YOU

that we know the business pretty thoroughly, and can supply you with the best of bells at the best of prices.

We even make bold to say that we do not believe you can afford to place an order until you see our goods and get our prices.

If you will write us, we will be pleased to give you the reasons.



BEVIN BROS. MFG. CO.,

East Hampton, Conn.

(Business founded 1832.)

Also makers of Trouser Guards, Toe Clips, Lamp Brackets, etc.

Read what **Mr. J. G. Swindeman**, the prominent bicycle dealer of Toledo, Ohio, has to say about the

CUSHION FRAME

HYGIENIC WHEEL CO.,
220 Broadway, New York.

GENTLEMEN:—

The writer is so thoroughly elated with the sales of **Cushion Frames** that it will, perhaps, please you to share in the enjoyment. Your **HYGIENIC CUSHION** has certainly proved its merits and worth. I introduced the **Cushion Frame** in Toledo, and my efforts have been rewarded with a revival in wheeling without precedent. Many men and women, who had given up the bicycle, owing to discomfort, have, upon a trial ride only, given me their order, and are to-day enjoying comfort and ease in the daily use of their bicycles. The universal expression is "The right thing in the right place." Each sale brings me additional converts. I am confirmed in the belief that the **Cushion Frame** will eventually be the future wheel for general riding.

Yours very truly,

J. G. SWINDEMAN.

You will find the **Cushion Frame** bicycle to be a great trade winner, and your 1901 line will not be complete without it.

Write your manufacturers about them.

NOTE:—Cushions are attached only to HIGH GRADE BICYCLES.

Toledo, Ohio, Oct. 4, 1900.

NOT TO KNOW THEM

is to confess oneself lacking in information.

BURNS GAS



NOT TO SELL THEM

is to prove the dealer lacking in the "shopkeeping instinct" and in the desire to offer the purchaser the best value for his money.

WE ARE READY TO TALK 1901 QUOTATIONS. ARE YOU?

BRIDGEPORT BRASS CO., . . . 19 Murray Street, NEW YORK.
Mills, Bridgeport, Conn.

Fisk Tires

Are You Going to Retire?

TO THE RIDER:—Going to re-tire your wheel this season? If so, go to your best local agent and ask him to show you Fisk Tires. Examine their reinforced tread, the unbreakable valve stem; pick up a cross-section showing construction and method of combining fabric and rubber—note the finish. Then pour into that dealer a rapid fire of questions. If he is an honest dealer, you will go out with the impression that Fisk Tires are the best made—and you will never be nearer to truth as long as you live.

TO THE DEALER:—Are you going to retire? Of course you expect to some time place your feet on the fender and enjoy life. But you'll not be able to do it this or any other season if you sell cheap tires. You are only losing trade and breeding trouble for yourself. Fisk Tires are right. They give satisfaction—not trouble. It pays to handle them. Write for terms and territory.

FISK RUBBER COMPANY, Chicopee Falls, Mass.

BRANCHES:

SYRACUSE, 423 So. Clinton St. BUFFALO, 28 W. Genesee St. DETROIT, 252 Jefferson Ave.

DISTRIBUTORS:

United Supply Co., Boston. Henry Keidel & Co., Baltimore. Pratt Bros. & Co., Agts., Chicago.
A. F. Shapleigh Hdw. Co., St. Louis. E. T. Weiant, Denver.
P. B. Bekeart, Agt., San Francisco. Post & Lester Co., Hartford, Conn.



REGARDING ROTATION

Simple Experiments that Show Some of its Peculiar Features.

The mechanics of rotation are of interest to cyclists, because the wheels of a bicycle are rapidly rotating bodies, whose behavior is of great importance to the rider's equilibrium, says an authority on the subject.

The fundamental property of a rotating body is its strong tendency to keep its axis of rotation in a fixed direction. It is a very instructive experiment to take a bicycle wheel that has been detached from the machine, and, holding the spindle in the fingers, to set the wheel revolving; if we then try to move the spindle in such a way as to alter its direction we find ourselves opposed by a most vigorous and unexpected resistance.

We may carry our experiment further, and suspend the wheel by means of a cord tied to one end of the spindle; when at rest the wheel will hang in a nearly horizontal position. If we now raise the free end of the spindle, and, holding the axle horizontal, set the wheel spinning rapidly, and then release the end of the spindle, the wheel will continue to rotate in a vertical plane, but it will also revolve slowly about the suspending string as a second axis!

At first sight it would seem as though the rotation enabled the wheel to resist gravity, and to remain in a vertical position instead of falling back into the horizontal. But the fallacy becomes apparent if we cut the string, for the wheel then falls to the ground exactly as it would do if there were no rotation; or, if we replace the string by a spring balance, we find that the pull on the string remains the same whether the wheel be rotating or not.

Another way of showing that rotation does not affect the weight of a body is to spin a top on one pan of a balance, and, having counterpoised it accurately, to watch the pointer of the balance as the speed of the top's rotation diminishes; no change in the weight will be indicated. These experiments show that rotation can give no lifting force, but only a directing one, and we take advantage of this directing force when we ride upright on two bicycle wheels, and also when we impart rotation to our projectiles in order to keep them true to their direction.

Low Rates to the South.

Excursion tickets at reduced rates are now being sold by the Chicago, Milwaukee & St. Paul Railway to the prominent resorts in the South, including Jacksonville, Fla., Mobile, Ala., New Orleans, La., Savannah, Ga., El Paso, Tex., which are good for return passage at any time prior to June 1st, 1901. Information regarding rates, routes, time, etc., can be obtained on application to any coupon ticket agent of the Chicago, Milwaukee & St. Paul Railway. ***

Knowledge of Costs Essential.

In all manufacturing businesses the calculation of costs is the most important task of all; yet in consequence of the labor involved and the real difficulties in the way of arriving at exact figures, it is frequently performed in an ill manner or not performed at all.

Touching on this subject at the annual meeting of an English parts manufacturing concern, Arthur Chamberlain—brother to the Hon. Joseph—said:

No business that was conducted in the loose, free and easy style that existed in connection with many firms engaged in the cycle industry could hope to succeed. Many a well established business had been wrecked from this cause. No successful manufacturer would think of fixing a price for his productions without first ascertaining the prime cost and then adding to that a fair margin for profit and working expenses. It was the absence of system, and the desire to get orders at any price, irrespective of cost, that had brought so much disaster to the cycle trade. In boom times it was easy enough for any one to make profits, but the continuously successful man was the one who kept a prime costs account, and who was not so foolish as to take orders at prices for which the goods could not be reproduced.

Why He Disliked Coaster-Brakes.

That rara avis, the wheelman who abandoned the coaster-brake after using it, has actually been located. He lives in Dover, N. H., and the case is attested by F. W. Neal, a dealer at that place, to whom the task of removing the device was assigned.

The reason given, however, is at once unusual and a striking testimonial to the coaster-brake: The rider did not want it because he cycled to reduce his weight, and found that it saved so much exertion that it defeated his object to an appreciable extent.

Candle Lamps Make Converts.

Candle lamps, which have prevailed to some extent in Germany, appear to be making headway in England. Two of the principal cycle lamp makers there—Lucas and Miller—have taken them up, and exhibited candle-burners at the recent cycle shows, and are now advertising them.

Small Blaze at Syracuse.

Timely action by the Syracuse, N. Y., Fire Department, prevented any material damage being inflicted on the American Bicycle Company through a slight fire which attacked its plant, at 106 Wyoming street, last week.

Fostering Good Feeling.

The Minneapolis trade does things in a way that should "suggest things" to dealers elsewhere. As an instance, a "smoke social" was held last week by the Minneapolis Cycle Trade Association.

BANKRUPTCY BILL

Congress not Likely to Enact Changes During this Session.

No changes will be made in the bankruptcy law during the present short session of Congress. The Senate and House Committee on Judiciary on Saturday last reached an agreement to postpone consideration of the Ray bill for the amendment of the bankruptcy law until next Congress.

The bill was drawn on the recommendation of the National Association of Referees. It provides remedies for defects in the law so far as they have come to the surface.

As bankruptcy matters are before the United States Supreme Court, the decision may make necessary other amendments than those suggested.

Another reason for postponement is found in the fact that it is not generally believed there is sufficient time during the short session for the careful consideration the question demands.

The necessity for perfecting the law is declared by Commissioner E. C. Brandenburg, who is in charge of bankruptcy matters, in his report to the Attorney General, to be a matter of common knowledge.

The report says that while it doubtless would not be well to urge any sweeping amendment, Congress should give its attention to the provisions covered by Section 57 G of the law, which has been variously interpreted by the courts, the weight of the authority included within which are decisions of two Circuit Courts of Appeals, sustaining the position that payments on account made within four months must be first surrendered before the balance of the claim of the creditor to whom such payment has been made can be proved and allowed, which interpretation, the report declares, is meeting with almost universal disapproval on the part of the commercial community.

The Johnson Way.

The Iver Johnson's Arms & Cycle Works, of Fitchburg, Mass., are supplementing their trade paper advertising very effectually by means of the postal cards which they send out week after week to their agents and others whom they expect to make Iver Johnson agents.

The subject matter of the cards is changed each week, but the main idea is always kept in view—that is, impressing on agents the general goodness of the Iver Johnson bicycle and the money to be made handling it.

Always aggressive, the makers of "Honest Cycles at Honest Prices" are surpassing themselves this season in pushing what they aptly term "The Distinctive Cycle of the Future."

"Motocycles and How to Manage Them." The only book of its kind in existence. Price, 75 cents. For Sale by The Goodman Co.

Simplicity its Strong Point.

Many automatic inflating devices for pneumatic tires have seen the light, some of them possessing merit. Of the latter class is an inflator that has been invented and patented by Thomas H. McCauley, of Port Arthur, Can., and it appears to have a better chance of becoming popular than usual.

The only part of the inflator in sight is a valve, resembling the ordinary pattern, which protrudes from the rim. When the tire is formed an oval elastic shell is inserted. This shell has an intake through the spring valve, and as the valve closes against the return current of air its only means of escape, when the section of tire

reaches the lowest point of its circuit and is compressed by the weight of the rider, is through the slotted tip of the oval shell. As soon as the pressure is removed from the oval it again expands, drawing a fresh supply of air through the valve. This pumping operation will continue until the tire becomes inflated to a sufficient degree to overcome the rider's weight and stop the contraction and expansion of the oval shell.

Mulhall Passes Away.

Michael G. Mulhall, the eminent statistician, died in London recently. He was recognized as the pre-eminent authority on the world's statistics, particularly on the subject of the growth and tendencies of its industries. He was born in 1836.

Has Eight Rows of Balls.

Spring seat posts have come and gone during the past few years without making any very great noise in the world.

Some of them worked better than others; but the majority were, at best, far from perfect.

Many of the defects complained of have been overcome in an English seat post, which has been fitted with ball bearings. In it the plunger rod is placed on eight rows of ball bearings. These give it ample support in every way, with no play, and the freedom is absolute. A little oil is expedient, but not necessary. The pillar is fluted to provide the necessary grooves for the balls, and the plunger rod correspondingly grooved for their inner bearing.

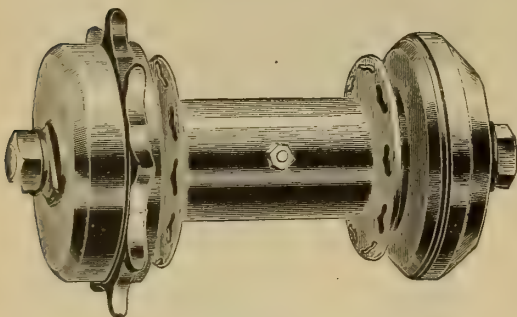
"TAILORED" ORIENT

Waltham Mfg. Co., Waltham, Mass.

THIS IS THE WORD

that is going the rounds now in bicycle circles. The progressive approve—the prejudiced ridicule—all are interested. The Tailored Bicycle is not a freak of fadism. It is no more absurd to say that the buckle on a man's trousers fits the garment to his person than to claim that the saddle-post of a bicycle fits the machine to his legs. Thousands of misfits show that there are individual requirements not covered by pant-buckle or saddle-post.

And the made-to-measure machine with its high gear and long cranks supplies the need.

WYOMA==Universal.

COMPLETE.
PATENT APPLIED FOR.

NO
BALLS
USED.

All Coaster-Brakes **with** balls have been and are **unsatisfactory**.

The Wyoma is the only detachable brake containing **absolutely no balls**. It has tool-steel rollers which cannot crush or cut grooves, and a **cone-shaped fibre** braking-surface, rendering it exceptionally powerful.

The Detachable model can be made to fit any standard hub, or furnished with hubs if desired.

MADE IN TWO FORMS.

"Universal" model combined hub and brake.

"Detachable" model for fitting to various hubs.

THE WYOMA UNIVERSAL is the new form, a brake and hub combined, made on same mechanical principle as the "Detachable," which has given such universal satisfaction. Has no arm to fasten to frame—the only coaster-brake that does not require one. Ordinary spokes can be used, and wheel laced up without taking brake apart.

THE WYOMA DETACHABLE had an unprecedented sale during past season, and will be made to fit to all leading wheels the coming season. Fit the Wyoma to your own hubs and thereby use your own bearings. Furnished with hubs, if desired.

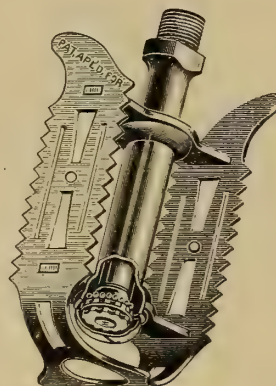
Wyoma Coaster-Brake Company.

Tenth and Exeter Sts., READING, PA., U. S. A.

Cable Address "WYOMA."

.. JOBBERS AND MANUFACTURERS ..

They have all had their say in regard to their pedals and prices, but the

**Bickel
Pedal**

beats them all in prices, when you consider our goods, which are made of the best of steel, and fully guaranteed,

Look at our adjustment and compare it with others. No more loose cones

by using our pedals, as our patent washer has two teeth which engage the cone and nut, and we guarantee them to stay there.

Write us to-day and get an eye-opener in regard to our prices. Electros may be had for the asking.

BICKEL MANUFACTURING CO.,

Shelburne Falls, Mass.

How a Strike Helped Riggs-Spencer.

The Riggs-Spencer Co., of Rochester, N. Y., have been seriously delayed by a rather unusual cause in the preparation of the splendid outfit of jigs and tools they are making for manufacturing their chainless fittings. They were receiving light and power from the Citizens' Electric Light and Power Company of that city whose plant was destroyed by fire a couple of weeks ago; next, bad weather intervened and prevented the establishment of other connections, and as a result the Riggs-Spencer people were brought to a standstill for more than a week. About the time they obtained light and power the Eastern Kodak Works had a strike of the tool makers; Riggs-Spencer promptly seized the opportunity to make up for lost time, and the same day the Kodak men went out they were all set to work as a night shift in the Riggs-Spencer factory. Their work is now progressing nicely, and they have samples about ready to deliver to their customers.

Can Tire Cracks be Prevented?

To the Editor of the Bicycling World.

I read your paper with great interest and benefit.

In a recent issue you had an article on the care of tires, which leads me to say that I have often wondered if there is not some preparation that can be applied to the outer surface of tires that will prolong the life of them. Cannot the minute cracks that always appear after a few months' use, even in tires of the very best quality, be prevented by some kind of application?

Some one who possesses knowledge of chemistry may be able to make valuable suggestions which will interest and benefit wheelmen. I hope to see them made in your columns.

D. H. STEPHENS, Riverton, Conn.

An offer of \$100,000 is said to have been made and refused recently for the factory of the Keating Wheel and Automobile Company, Middletown, Conn.

Balls In Place of Rollers.

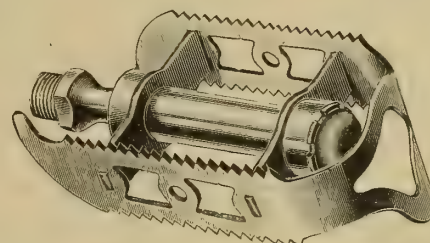
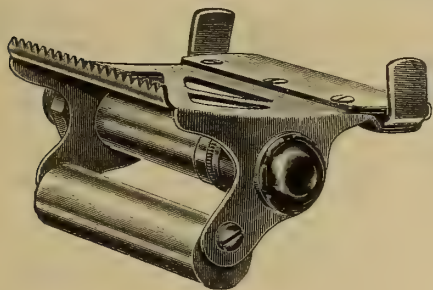
Not even the multitude of uses to which the ball bearing has been put seems to have exhausted its possibilities. New applications are constantly being made, some of them successful and others just the reverse.

Some years ago a Western concern brought out a ball bearing chain that looked well, but never caught the popular favor. Now an English firm is endeavoring to make a somewhat similar chain go. In this case each link of the chain is described as containing a steel ball free to revolve in any direction, which takes the place of the roller in any ordinary $\frac{1}{2}$ -inch pitch chain. The advantages claimed for this are reduced friction, greater cleanliness and less "stretch." There is no increase of weight over a $\frac{1}{2}$ -inch roller chain, and the ball chain will fit standard sprockets.

Over 80,000 people attended the Stanley Show of 1889, which was the last year the figures were made public.

**WE ARE RECEIVING VERY GRATIFYING ORDERS FOR THESE NO. 12 PEDALS,
ALSO FOR THE NO. 3 PEDALS AS ILLUSTRATED.**

**WE HAVE THE GOODS READY TO DELIVER, AND THE PRICES ARE INTERESTING ENOUGH
TO SATISFY AND PERSUADE YOU TO BUY.**

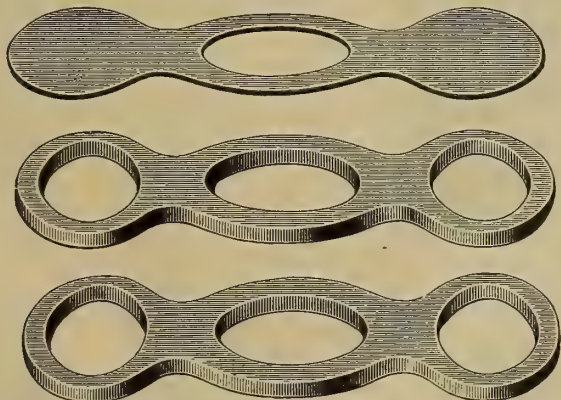


WRITE FOR CATALOGUE "C."

REED & CURTIS MACHINE SCREW CO.,

WORCESTER, MASS.

PLATE CROWN No. 2000.



Made for 1 in. center and 7-8 in. sides. 2 in. between sides.
Will furnish plates separately for building 3-plate crowns.

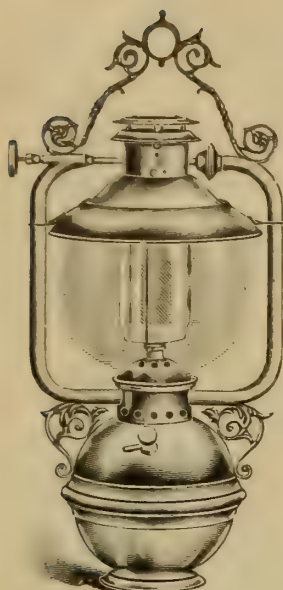
BOX CROWN No. 2004.



Made for 1 in. or 1 1/16 in. center and 1 in. sides. 2 in. between sides.
Fully reinforced in body of crown, also in fork sides.

SEND FOR CATALOGUE OF 1901 PARTS.

THE H. A. MATTHEWS MFG. CO., SEYMOUR, CONN.



Outdoor.

THE NULITE

750 CANDLE POWER

ARC ILLUMINATORS

Produce the finest artificial light in the world
SUPERIOR TO ELECTRICITY OR GAS
CHEAPER THAN KEROSENE OIL

20th Century Revolution in the Art of Lighting

They darkness into daylight turn,
And air instead of money burn.

No Smoke. No Odor. No Noise. Absolutely Safe.
They are portable. Hang them anywhere.

WE ALSO MANUFACTURE

TABLE LAMPS PENDANTS WALL LAMPS
CHANDELIERS, STREET LAMPS, ETC.

The BEST and only successful

Incandescent Vapor Gas Lamps

made. They sell at sight. Nothing like them.

A SNAP FOR BICYCLE DEALERS.

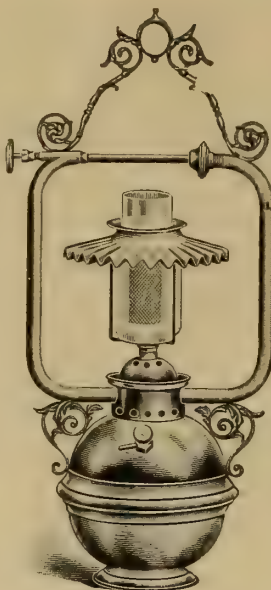
Agents wanted everywhere.

Write for catalogue and prices.

CHICAGO SOLAR LIGHT CO.,

56 FIFTH AVE.,

CHICAGO, ILL.



Indoor.



HERE IT IS!

The Melvin
Automatic
Coaster
and Brake.

Thoroughly reliable, having been tested for two seasons.

Write for catalogue and prices.

F. M. SMITH & BRO., - St. Paul, Minn.

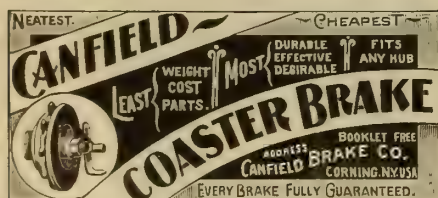
PATENTS GUARANTEED



Many have made fortunes from simple inventions.

Our fee returned if we fail. Particulars and our book "How to Secure a Patent" sent free. Patents secured through us are advertised for sale at our expense. Send sketch and description of your invention and we will tell you free whether or not it is patentable.

CHANDLER & CHANDLER
Registered Attorneys,
906 F Street, Northwest,
WASHINGTON, D. C.



L. R. HALL

Enameling and Nickeling Co.

ENAMELING, NICKEL-PLATING
and VULCANIZING for the trade.

Carriage Tires
Our Specialty.

4 PORTLAND STREET
BOSTON.

HIGH GRADE

wheels must have the
best equipments.

There is nothing that gives more value for
the money than the use of the

MORSE TWIN ROLLER CHAIN



NOISELESS IN MUD, WATER OR
DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless
Rocker Joints. Insist on having the
Morse Twin Roller. Fits regular
sprockets.

Send for Catalogue and
Trade Price to

Morse Chain Co., Trumansburg, N. Y.

WE SELL ALL THE PARTS TO MANUFACTURE
AUTOMOBILES.

CREST MANUFACTURING CO.
— CAMBRIDGEPORT, MASS. —

CREST GASOLINE MOTORS
FOR
TRICYCLES AND
AUTOMOBILES.

THREE, FOUR AND FIVE HORSE-POWER MOTORS.
CREST INDESTRUCTIBLE SPARKING PLUGS,
Guaranteed. Price \$2.00.

Sheet Steel Bicycle Parts.

All Kinds of Metal
Stamping

THE CROSBY COMPANY, Buffalo, N. Y.

The announcement is made of the marriage last July at New York of F. Terry Andrae, the well known superintendent of the Julius Andrae & Sons Co., of Milwaukee, Wis., to Miss Elsa A. Hasse, of Los Angeles, Cal.

HAND AND FOOT PUMPS,

Oilers, Repair Tools,
Valves, Name-plates, etc.

Spelter Solder

Sheet Brass,
Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn
Depots: 210 Lake St., Chicago.
423 Broome St., New York.

The "FLEMING" Motor
LEADS.

Use it
on your
Motor-cycle.

Fleming Mfg. Co.,

93-95 Elizabeth St., New York, U. S. A.

ANTI- I X L -FREEZE

Is a chemical powder which will absolutely prevent the water freezing in your acetylene lamp. Price 25 cents per box of twelve powders. Ask your dealer for it, or write to the manufacturer.

A. H. FUNKE, 101-103 Duane St., N. Y. City.

How'd you like to have
the agency for the Ra-
cycle?

MIAMI CYCLE & MFG. CO.,
Middletown, Ohio.



A thoroughly strong Spanner and adjustable
to any size cone.

FORSYTH MFG. CO., Buffalo, N. Y.

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., December 27, 1900.

No. 13.

CUSHION'S CAPTURE

Long Negotiations Finally Decide the A. B. C. in their Favor.

After a long period of negotiation the American Bicycle Company and the Hygienic Wheel Company reached an agreement this week, whereby cushion frame models of all of the higher grades manufactured by the first named company, will be listed and offered to the trade and public.

This means that cushion frame Columbias, Clevelands, Sternses, Spaldings, Tribunes, Barneses, Crescents, Monarchs, Ramblers and Featherstones will now make their appearance, most of them in both chain and chainless models.

It is stated, too, that the A. B. C. will push the sale of these models aggressively.

Vice President Chute, of the Hygienic Wheel Company, owners of the cushion frame patents, is naturally elated at the satisfactory outcome of the negotiations, and sees his forecast of a "cushion frame year" brought nearer fulfilment.

Dilemma of the Horne.

In the Superior Court at Hartford, Conn., on Friday last Judge O. R. Beckwith made application in behalf of stockholders of the Horne Manufacturing Company, of Collinsville, Conn., for the appointment of a receiver for the concern, which was engaged in the manufacture of pedals.

Howard L. Sanborn, a stockholder of the company, stated that he had been appointed by the directors an agent for the Horne company to determine the condition of the plant. In November he started up the machinery to see how it worked. He found that it was no good and that it could not turn out good stock. He applied to the president for all the bills due by the company. The president gave him some bills, and he (witness) was obliged to ask him several times before the president gave a complete list of the bills. Some which it was said had been paid he found were due. The company is solvent.

The outstanding indebtedness of the corporation is \$1,500, and \$500 of this is secured by a mortgage. There are bills re-

ceivable to the amount of \$700 or \$800, but he thinks that of this sum only about \$200 or \$300 is good. He thinks the plant of the concern is worth \$2,500. His personal choice for receiver is Benjamin F. Case.

Jasper H. Bidwell stated that Mr. Case was the choice of the directors for receiver.

Judge Prentice appointed Mr. Case receiver and fixed his bond at \$2,500. The bonds were furnished by the American Surety Company.

Felton Parker Dead.

Felton Parker, manager of the patent department of the American Bicycle Company, died Saturday afternoon at the home of his mother in South Lancaster, Mass. He was thrown from a horse some ten days before and never recovered consciousness.

Although little known to the rank and file of the trade, Mr. Parker was highly esteemed by all who knew him, his wide travel and unusual experiences having given him a fund of information that made him a most delightful companion.

He was graduated from the United States Naval Academy in 1882, but was a civil engineer by profession, having been engaged on the Hoosac Tunnel, among other works. He accompanied the first Greely relief expedition on the Yantic, and was the first commander of the Connecticut Naval Reserve, with which he served during the war with Spain. He had also been a ranchman and came from his ranch in 1893 to accept service with the Pope Manufacturing Company in Hartford. He was connected with that company when it was taken over by the American Bicycle Company, which continued him in office with enlarged scope.

Mr. Parker was forty-three years old, and unmarried.

Appointed a Committee.

No definite action, beyond the appointment of a committee of six by the taxpayers of Laconia, N. H., has yet been taken in relation to the proposed removal from Cleveland, Ohio, to the former place, of the Hoffman Bicycle Company. The committee was named after a meeting held at Laconia last week, which was addressed by President Hoffman, and it will look into the matter and canvass for subscriptions to be used for the purpose of bringing about the desired object.

McENEANEY'S "STRIKE"

Would Force Motorcycles and other Gasolene Vehicles out of New York.

Alderman McEneaney evidently desires to be "seen." When a city official is filled with that desire he is apt to do such things and say such things as are likely to make the city appear ridiculous. A trifle like that, however, never worries a New York Alderman, and it, of course, does not worry McEneaney.

The fact that gasolene has been in use for years does not appeal to McEneaney. He has suddenly awakened to its great danger, and brave and unselfish man that he is, he has rushed to the protection of the dear people. As chairman of the Aldermanic Board's Committee on Fire Department, McEneaney is able to play protector very conveniently, and did so yesterday by presenting a resolution which provides that it shall be illegal on and after January 1 for any individual to "use or have in his possession any of the compound known as gasolene, in any house, building, store, or on any street, avenue or highway of New York City," and that the penalty for each violation of the ordinance be a fine of \$25.

Mr. McEneaney explained that he introduced the resolution because so many accidents had been caused by the use of gasolene.

Mr. McEneaney's "explanation" is quite transparent. The adoption of the measure would, of course, effectually bar the use of all motorcycles and gasolene automobiles, but whether the astute Alderman expects to be "seen" and have his palm scratched by the Standard Oil Co., the gasolene automobile makers or their rivals is one of the things that only Mr. McEneaney knows.

The resolution, however, seems so ridiculous and opposed to progress and common sense that its adoption does not appear possible.

MOTOCYCLE MATTERS

The Bicycle Makes Headway at the London Shows—About Water Cooling.

53 Fleet Street, London, E. C.,
December 5, 1900.

The shows are over, and everybody is more or less happy to think that the worry which they involve upon all concerned has passed away for another year. Business has been good, bad and indifferent, according to the popularity of the firms exhibiting; but, taking it all round, there seems to be a general feeling that things might have been a good deal worse, and that trade is better than it was last year. Prices, too, have ruled a little higher.

MOTOR BICYCLE "TOOK" WELL.

For some reason makers seem rather reticent with statements as to the amount of business which they have done in the motorcycle line, but I should say that it has been somewhat disappointing. The Singer Cycle Co., Ltd., have done well with their motor bicycle, and if they can only get a few of them on the roads before the season opens I should say that the demand will be fairly large. At present, with the roads inches deep in mud, the public do not feel inclined to invest in motor bicycles, because most people seem nervous about trying the machine on account of side-slip. When the dry roads come they will be braver, and then, finding how wonderfully easy it is to control the machine, they will place orders.

At a retail price of £66, and as times have been so bad, it is hardly to be expected that a large number of cycle agents will feel inclined to place contracts for these machines in advance; and, this being the case, I am rather surprised to hear that the Singer Co. have done the business which they undoubtedly have with this novelty. It speaks well for the future trade in motorcycles that so many orders have come in.

TRICYCLE SALES FALL AWAY.

On the other hand, the business done in motor tricycles appears to have been smaller than was expected, and the same applies in perhaps a less degree to the trade in motor component parts. It is clear that the average cycle agent has not made enough during the past season to warrant his investing money in motorcycles. He looks at them with interest, and frequently makes copious notes with an eye to future business, but he does not buy, which is hardly the frame of mind in which the manufacturer likes to find him. Still, even this "backwardness in coming forward" may be a blessing in disguise, for it will prevent some of the firms incurring bad debts, which have been far too plentiful in the past.

AS TO WATER COOLING.

It seems to be the general opinion that the step which the "Enfield" people have made in providing water-cooling for one pat-

tern of their quads is a move in the right direction. This means more cost, and that is the worst phase of the question, because, mechanically speaking, the water-cooled quad must be admitted to be very superior to the air-cooled pattern. But the quad is already a somewhat costly form of motorcycle, and if a few more dollars are to be added people will begin to think that they might just as well buy a voiturette while they are about it. Indeed, there are signs apparent that the prices of small cars will soon come down somewhat, more especially as several firms are now offering complete sets of components, ready for making up into voiturettes of the "Miniature Panhard" pattern, to the trade at very reasonable prices, as motors go at present. This will mean that the "assemblers," who did so much to lower cycle prices, will be enabled to do much the same in connection with motor cars of the voiturette class, so that this will in a measure interfere with the sale of motorcycles, especially if the prices of these latter machines are increased instead of being reduced.

HELPS THE MOTOR BICYCLE.

The fact that the quad when it is fitted with an air-cooled motor is not a very satisfactory vehicle seems to point to the conclusion that, unless these machines be constructed to carry one person only, which is hardly likely to come about, the motorcycle trade must depend upon the motor tricycle or the motor bicycle. Probably both types will "boom" considerably next season, and both at present leave plenty of scope for ample reductions in cost so soon as the demand becomes more general, and patterns can be even more standardized than they are at present. The public will buy motorcycles at reasonable figures, and do not want the high-powered machines, the cost of which is not only great in itself, but also tends to keep up the prices of those of more reasonable build, for it is clear that the constant alterations necessary when motors of increased power are fitted means great additional outlay in the experimental and pattern making departments, which has all to be got back somehow out of what is, after all, the legitimate trade, namely, that in ordinary road motors for the ordinary use of the ordinary purchaser. This is a side of the question which a great many manufacturers appear to lose sight of altogether.

WHERE WOMAN COMES IN.

A thing which struck me very much when looking round the shows was the absence of trailers suitable for attaching to motor tricycles. There were two or three designed to clip to the pedal-propelled safety, but these were hardly strong enough to hitch behind a powerful motor, and to run over rough roads, with any reasonable degree of security. Yet it seems to me that the trailer is an important adjunct to the motor tricycles, and, as such, should be encouraged. It is one of the disadvantages often urged against the motor tricycles that it is "unsociable." The

machine must necessarily be a great deal higher in price than a cycle of ordinary build, and is not, therefore, so likely to find patrons among very young men. The well-to-do man may, and will, take to it, but this same man frequently is married, and if he buys a motor and absents himself from home there is the "missus" to consider. Hence in order to have peace and to be let out occasionally he must buy a trailer and sometimes take her, too. If he does not, then he is told to sell his motor tricycle and get a sealskin jacket, and when this ultimatum is given the matter is ended. The trailer would keep things smooth. With the bicycle it is different, for the wife goes, too; but the average lady cyclist is hardly sufficiently good to keep up with a motor when it is going even at only strictly "legal limit," so she strikes, and there is an end of the matter and incidentally of the motor.

Naturally the same drawbacks as to water-cooling apply to the motor tricycle when it is drawing a trailer, but the pace is not so fast, and the riders do not expect so much out of the machine. For this reason the trailer, though not pretty and sometimes slightly dangerous—especially on greasy roads—seems more suited for most people's requirements than the convertible machines, which can be altered from tricycle to quad and vice versa by any one in a few hours—minutes, the makers say. In the quad form these machines are expected to do nearly as well as when used as tricycles only, and hence are often sadly overdriven, with the result that constant breakdowns occur. Taking all things into consideration, the trailer seems to solve the motorcycle-cum-matrimonial difficulty better than any other plan.

Rochester Repairers Annoyed by Noise.

Bicycle repairers do not, as a rule, particularly object to noise, but there is a limit to all things, and this appears to have been reached at Rochester, N. Y., where suit has been brought in order to put a stop to it.

The complainants, George Oakley and William Lutz, conduct a repair business in the building at 24 Spring street. On the floor above the defendant, Austin S. Brooks, doing business as the Weider Harness and Patent Collar Co., operates certain machines, among them an electric motor, emery wheels, etc. Oakley & Lutz seek to restrain Brooks from operating this machinery unless he puts in heavier foundations for it.

They assert that defendant's machinery, while in operation ten hours a day, "causes unpleasant, uncomfortable, unusual, intolerable and disturbing noises to be regularly and persistently made." It is further asserted that "said pounding causes loud, dissonant and offensive noises at every stroke, and jars and shakes the entire building, plaintiffs' office and shop in particular," in so much as to unfit the place for business purposes, give the men at work in the bicycle rooms headaches, interfere with any one trying to use the telephone, and shake the gas fixtures loose.

'FRISCO AFFAIRS

Dealers Meet and Resolve—Complaint of Slow Arrival of 1901 Samples.

San Francisco, Dec. 20.—At a meeting the other evening of the San Francisco Cycle Board of Trade the following resolution was adopted:

"Resolved, That we heartily commend the Court Commissioners in recommending the making of bicycle stealing a felony; and that this San Francisco Cycle Board of Trade will give them their personal support toward making a law to that effect; and we ask the co-operation of all bicycle dealers and riders of the State to join in the good work by conferring with members of the Legislature to convene next month."

A committee was also appointed to call on the Chief of Police and see if he could do anything toward having wagons prevented from injuring the pavements by travelling with one wheel in the track and one on the pavement.

Manager E. E. Stoddard of the bicycle department of Dunham, Carrigan & Hayden Co. has gone north to meet his travellers at such rallying points as Portland, Seattle and Spokane. Being more fortunate than a large majority of his esteemed contemporaries in this port in having received samples of his next year's lines—Dayton, D. C. & H. Co.'s Roadster and Crawford—Manager Stoddard took with him eight three-wheel trunks. This hustling wheel agency has thirty-four travellers for the Coast territory, and in going the grand rounds to distribute pointers for the season to follow this large company of salesmen are met at stated places by the department manager in squads of three or four.

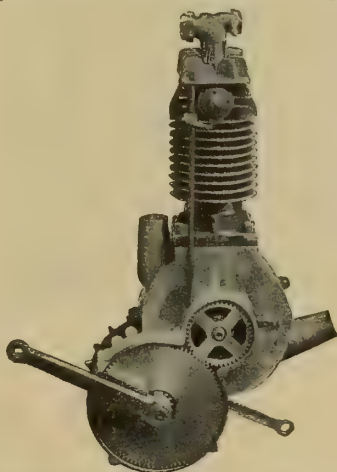
President William I. Grubb of the Light Cycle Co., of Pottstown, Pa., who was here and up and down the Coast last summer personally assisting his agents, and who on going East last fall said he should be here again with the boys by this time, has sent a letter instead, stating that he is greatly interested at the Light factory in evolving an automobile destined to beat the record, and that his arrival here will be deferred about two months.

In specifications being issued relating to the finish of the "Baker & Hamilton Special" is this announcement: "We claim that we have the finest finished bicycle that will be offered the trade for the season of 1901. This is a very broad statement, but we can substantiate the claim fully. A cheap article, a shoddy product, cannot possibly be finished in a strictly high grade manner. Nothing but the very best material and accurate workmanship throughout can produce this, and the enamel must be black. All colors are simply paints. Our bicycles are enamelled—no paints are used; therefore, we finish in one color only—black."

Simplified Motor From Springfield.

The result of one of the many efforts that are making for motor simplification is shown by the accompanying illustration—the Hampden one-horse power motor, made by the Hampden Manufacturing Co., of Springfield, Mass.

That it does simplify the construction of motor bicycles even the cut makes plain. The motor is designed and built expressly for bicycles, and when in position is built in and forms part of the bicycle frame. The crank hanger and rear lugs, lower main tube lug and seat mast lug are part of the fly-wheel case of the motor, thus insuring, it is claimed, permanent alignment of the sprockets, equal distribution of the weight and driving strains and a low centre of gravity.



In the illustration the motor is shown with the gear cover removed, exposing the spur gears, which not alone form the usual two to one gears, but are also the driving gears. The smaller gear is fixed upon the driving shaft; the larger gear is ball bearing and runs free from the crank axle, bearing upon its inner face the cam for lifting the exhaust valve and the cam for making and breaking the ignition spark. Secured to the hub of this gear is an eight-tooth driving sprocket, to be connected to a sprocket on the left side of the rear hub by means of a chain. On the right hand side of the crank hanger is situated the usual driving sprocket. A coaster brake rear hub is necessary.

The proportions of the motor are as follows: Height over all, 17 inches; weight complete (as in illustration), 34 pounds; speed, 1,200 to 1,500 revolutions per minute; cylinder, 2.3-16 inch bore by 2 3/8 inch stroke; width of flywheel case, 2 3/8 inches; width at widest part (crank axle length), 6 1/8 inches. All bearings are of phosphor bronze, and are larger and wider than usual in this size of motor.

W. C. Marsh and C. E. Clemens, who comprise the Hampden Manufacturing Co., and who were of the Cycle and Tool Co., have been experimenting with motors for quite some time. Mr. Clemens, particularly, has been deeply engrossed, and had a motor of his own in use on a bicycle nearly two years ago. He has been perfecting it ever since, but has resolutely refused to offer it to the trade until he knew it to be right in every particular. Its appearance at this time speaks, therefore, for itself.

NOT UNSOCIABLE

One of the Queer Arguments Affecting Motorcycles Nailed Hard and Fast.

"If there is anything that makes me warm," remarked the oldtimer who has worked up a considerable degree of motorcycle enthusiasm, "it is this talk about the unsociability of motorcycles."

"I've just been talking with one of those fellows who thinks that the bicycle that is convertible into a tandem tricycle or the tricycle that may be converted into a quad has no future. He says they're unsociable machines—that people won't buy them—that they'll put their money into a small carriage in preference, because in the carriage two people may ride side by side."

"I've heard that wheeze until I'm tired. It seems to me it's about time to choke it off. Is a converted motor bicycle or motor tricycle any more unsociable than a pedal driven tandem? Of course it isn't. And because people cannot ride side by side on a tandem did they all rush into carriage shops and shell out the price of a cab or a landau or a victoria? Of course, they didn't. Then, how the deuce can any one figure it out that because people can't ride side by side on a motorcycle they'll all pick up money enough to invest in voiturettes and runabouts?"

"That's what these men who are prattling about motorcycle unsociability seem to imagine will be the case."

"What would I do with a voiturette if I had one? Could I uncouple it and carry it into my cellar or prop it up in my hallway? Not much. I'd have to hire stable room for it and a man to look after it, and then I'd go broke in less than six months."

"The convertible motor bicycle and tricycle is the sort of automobile that appeals to me, and I'm a fair average of ordinary individual. I can keep it on my own premises, ride it as a single when I want to, or convert it into a double at will, and I don't see why the machine will lack sociability simply because I am seated behind my friend. Why didn't they bring that wheeze to bear when tandems were brought out? Instead, they all talked about the sociability of that two-seater, and I'll gamble what little I have that the convertible motor bicycle will have a run, when it is fairly started, such as none of us ever dreamed of in connection with the pedal pushed tandem."

Gamage is Coming Over.

A. W. Gamage, London's most famous jobber, writes the *Bicycling World* that he will reach this country in time for the New York Cycle Show. He usually "comes over" once each year, with his weather eye open for good things in the way of sundries and novelties of all kinds.

IT'S A GOOD BICYCLE TO SELL.

IT HAS "GOOD WILL" IN IT.



HUNDREDS of dealers have found out that the NATIONAL is a good wheel to tie to. It has points about it that no other wheel has.

IT IS DIFFERENT FROM OTHERS.

The energetic dealer finds that he has something to talk about in the way of distinctive construction, in the same way as he did in the palmy days when every wheel was different. The NATIONAL never was and is not now "the same old thing" under a different name-plate. In selling the NATIONAL you are selling a specialty, and a trade built up on it has good will whose value increases annually. Hundreds of our old customers have demonstrated this. You will find it profitable to become one of them.

NATIONAL CYCLE MFG. CO., BAY CITY, MICH.



Fisk Tires

A HAPPY

combination of rubber and fabric, put together with mechanical correctness, and in such a way as to withstand severest wear, is a good definition of Fisk Tires. Is it any wonder that we start the

NEW YEAR

with twice the orders we ever had before, sufficient to keep our factory running day and night from now until Spring in order to turn them out?

It really seems that merit will tell, and that the dear bicycle public appreciate our efforts to give them the best tires ever made.

Our handsome new catalogue is ready.

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THE BICYCLING WORLD

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, DECEMBER 27, 1900.

In making your New Year's resolve, it is well to bear in mind that it is as important to aim straight as to aim high. Consciousness of the fact may add to the happiness of the year.

The Promise of the New Century.

The nineteenth century saw the invention and perfection of the man propelled bicycle; it saw the invention—we dare not say perfection—of the pneumatic tire.

The century gave us greater gifts than these, of course, but few that contributed more to the health and happiness of the common people.

The nineteenth century saw the invention of the motor bicycle; the twentieth century will see its perfection; it will see the hills levelled and the winds stilled, and lead us into a realm of cycle health and happiness and of individual rapid transit and independence such as the mind cannot now conceive.

The motor bicycle is certain to be numbered with the triumphs of the new century.

Work for Local Organizations.

With the "wild cats" of the retail trade pretty well "killed off" the reputable dealers who remain apparently recognize what we have several times pointed out: That there was never a time when organization would serve better purposes.

The tendency toward organization is well defined, and has resulted in the formation of two strong local associations within the past three weeks.

The adoption of repair and rental tariffs, of a schedule on sundries and of an agreement as regards traded-in bicycles, should not be, however, the sole objects of organization. Tariffs and agreements are well enough, but we think that local trade would be served if efforts were made to minimize the evil that leads up to nearly all disturbances, i. e., the overstocking of the local markets. As far as possible, let there be an interchange of stocks when trouble appears on the horizon, or if not this, then the experiment of a joint clearing sale of a particular article is well worth a trial. It is overstock that leads to price cutting, and price cutting that leads to the bankruptcy court. Joint clearing sales mutually agreed on, removes the odium and danger of a war of prices.

It is such subjects as this that the local associations can discuss with profit to all concerned. Let a member be delegated to prepare and read a paper on a topic of the sort at each meeting, and let all parties present join in the discussion, and the good that can be accomplished is not easily measurable. It is a legitimate feature of trade organizations too little made use of in this country.

The Ebullition of the Ex's.

In the process of reconstruction through which the cycle trade is passing, the ebullition of the "ex's" is playing no inconsiderable part, and a part that is serving no good purpose; it is serving only to hinder and retard the regeneration.

If one were using the language of the day, he would probably substitute "knocking" for "ebullition" and come nearer, perhaps, to a term making up in general comprehensiveness what it may lack in polish and alliteration.

The "ex's," of course, comprise those who are out, and those who are disgruntled and on the ragged edge. Ex-manufacturers, ex-dealers, ex-travellers, ex-salesmen, ex-advertising solicitors and all the other

"ex's" are on the list. The list is not a short one, and it bears the names of many who obtained better livings in the cycle trade than they had ever obtained before they entered it, or are likely to obtain now that they are out of it.

The natural deflation of the boom that enabled them to draw unwonted sustenance for a period of years has left them flat and disgruntled. Their mouths are full of woe and pessimism; their souls are full of bitterness.

One has but to utter "bicycle" to hear them boil. It is almost as effective as the proverbial red rag on the bull. The "ex's" revile the bridge that carried them into a period of prosperity such as many of them had not known before; their funds of philosophy and gratitude, if they ever existed, appear exhausted.

Mention "bicycle" in any company and immediately you are assured that it is a "dead duck"; that the business "has gone to the dogs," that "the bottom has fallen out of it" and so forth and so on ad nauseam. The changes are rung often and in many keys, and the army of "ex's" is so large that its bitter and pessimistic ebullitions form a chorus of such volume that too frequently it affects and infects others who fail to realize that it is the empty vessel that gives the most sound.

In this way the "ex's" take some heart and enthusiasm out of the business—a fact as regrettable as it is unavoidable. In due time the "ex's" will evaporate—will talk themselves out or betake themselves hence, and the cycle trade will know them no more. It is a process of natural evolution. It cannot affect the ultimate regeneration of the trade; it merely delays it. Meanwhile due allowance should be made for the "ex's" and the dejection for which they are responsible.

Practice versus Theory.

Exhibitors of motorcycles at the coming show could make no greater hit than by availing themselves to the utmost of the facilities afforded for the trial of machines in the basement of Madison Square Garden.

In the past shows have suffered through the lack of novelty. Practically all the visitors rode and were familiar with the appearance and construction of the machines exhibited, and they found nothing particularly exciting or even interesting in gazing at what was to them a usual sight.

At the forthcoming January show it will

be very different. There will be submitted for inspection machines of the most strikingly novel character. Bicycles, tricycles, quadricycles, like and yet unlike the patterns now grown so familiar, will be there, supplementing the time-tried but palling excellencies of the latter with others of an entirely different kind.

The merits of motorcycles are certain to commend them to many cyclists even when the latter's knowledge of them is entirely theoretical. But the interest will be intensified many times over and the sphere of its influence widened immeasurably when practice takes the place of theory.

No surer method of fascinating a person exists than that of putting him on a motorcycle and letting him see what the machine will do, and how easy, comparatively speaking, it is to manipulate it. The instant this is done he falls a willing victim to its charms and is wild for a more extended experience.

It follows, therefore, that the easiest, as well as the surest, way to make converts is to let people try the motorcycles.

Talk as much as you please, dilate learnedly upon explosion chambers, tremblers and other constructional details, show complete and dissected motors.

All this will do good and help to prepare the soil for the crop of motocyclists that is sure to follow.

But clinch the matter by giving your auditor a ride on the machine. Let him feel the thrill of expectancy, the exhilaration of motion, the delight of knowing that he is manipulating the machine.

This will do more good than all else.

Something that is Not Wanted.

If ever a man looks a fool it is when seated on a trailer attached to a motorcycle.

The fact is so apparent and is so generally remarked on this side of the pond that it seems difficult to understand how any one can argue in favor of the contrivance as against the two-wheeled front seat attachment.

Our London correspondent is so usually sound that his remarks in favor of trailers sound like one of the eccentricities of genius. We reproduce them simply as showing the peculiar and, to us, perverse trait of the British character.

In one discussion we heard it termed a "dump cart," but to us the trailer suggests nothing so much as a child's toy wagon. The sight of a grown person seated in one

of the swaying, skidding, clumsy things is supremely ridiculous.

We believe any one in this country who devotes himself to the trailer is simply wasting time and energy, and will have only the laughter of the populace for his pains.

Roadsters Now the Model.

While it is quite natural that it should be so, the fact that racing machines to-day are identical with those of half a decade or more ago has been but little commented on.

Road machines have during this period undergone material change. For example, the three C's—the coaster-brake, the cushion frame and the chainless—were first used on road machines and came into use without the aid of the racing man. The weight of the chainless militates against it being more than occasionally used on the track, while the other two types referred to never appear there at all.

This pushing aside of the racing machine, its retirement from the position it once occupied as the arbitrator of all constructional matters, has been both inevitable and gradual. Nevertheless, we are surprised when we reflect upon its completeness.

It has been brought about by a variety of circumstances. Not the least of these is the state of comparative perfection to which the racing machine was long ago brought. To-day they are all practically alike, and no designer is able to point out where any real improvement could be made.

Again, the racing machine has ceased to be regarded as the model for all others. Changes in road wheels are now made without regard to their influence or effect on similar machines used for racing on track or road. If they are useful or desirable on roadsters they are made without hesitation.

If this had not been the case the coaster-brake could never have attained its present popularity. This is also true of the cushion frame and, to a less extent, of the chainless.

What further changes are in store it is not easy to say. But it is a pretty safe prophecy that they, too, will be departures from the details of the racing model.

Extremes Not Favored.

Already it has been discovered that the building of more powerful motors is not the panacea for all the ills which motorcycles are heir to, as was for a time so generally supposed.

When the small motors—which were as large as the then state of the art would admit of building—were first put out it was

assumed that their shortcomings were due to the fact of their small horse power. There was much truth in this assumption, and matters were undoubtedly bettered by the advent of the larger motors.

But the movement was, of course, carried too far. Motors of more than adequate power were fitted, and the inevitable reaction is now setting in.

Too much power is almost as bad as too little; for it adds to the cost and the weight and greatly increases the difficulty of running at slow speed, which is really one of the motorcycle's weak points.

It is therefore decidedly to the interests of both makers and riders to avoid using motors of too great power.

All reasonable purposes are accomplished with the medium sizes, and the fact that this is pretty well understood argues well for the future.

It would not be easy to go farther in point of recklessness than have the dealers of a Western town in the matter of rentals. By successive reductions, made by wrangling dealers, the price for a day's hire was forced down to twenty-five cents, and even then a threat was made by a jealous rival to make a further reduction of ten cents. The time was when fifty cents for the first hour and \$2.50 per day were not unusual charges, and few fortunes were made even at these figures.

Are motor bicycles peculiarly liable to side slip, or is this largely an imaginary evil? Such machines do slip occasionally, but this proves nothing, for the ordinary bicycle is by no means exempt from the same trouble. It is rather remarkable that those who cry "side slip" are usually non-users of motor bicycles, while those most familiar with them assert that they are harmless. It is probable that only general and extended use will avail to settle the vexed question.

Our American friends are crowing because they hear that the all powerful Dunlop Tyre Co. is not only marketing a single tube tyre, but is mounting it on wood rims—for sprint-racing purposes only, of course, and for use on the best tracks only.—Bicycling News. Of course, and again of course! The original Artful Dodger was, we believe, an Englishman.

Has any one used a spring seat post on a motorcycle, and with what result? It would seem to be a good thing for the purpose, but practical experience is wanted.

HOW IT IS DONE

The Manner in which the Compact Motor is Contained within the Wheel.

As may be imagined, it has taken considerable ingenuity to work out the details of construction of the Compact motor, the British invention described by the *Bicycling World* some time ago, the entire mechanism of which is contained within the wheel.

The motor well merits its name—"Compact"—the great aim of its makers having been to economize space and simplify the various parts. How well they have succeeded may be inferred from the fact that motor, tank and carburettor, sparking device, etc., are placed in a single wheel of the regulation diameter, and that the rider of the machine has but one lever to operate in place of the four usually provided.

Just how this lever operates only an examination of the machine will disclose. But it is known that the lever in one position opens the compression valve, another movement regulates the mixture of the gas and air, and a third position shuts off the explosions and causes the engine to act as a brake, the compression being retained.

The frame of the cycle to which the motor is attached is of the usual type, with the exception of the back fork ends, which are made in the form of halved clips, and grip the outer ends of the motor trunnions. The inner ends of the trunnions are bracketed to the crank chamber of the engine, which keeps the motor fixed in a vertical position, while on the centre of the trunnions the wheel sides revolve on ball bearings. The engine never alters its position with regard to the frame.

The wheel sides are of aluminum, and are each made in the form of dished flanges, the arms of which are sufficiently far apart to form a fan to cool the motor, and also to give easy access to it. The peripheries of the flanges meet and are grooved to suit the channel of the steel rim, and grip the same when bolted together. By undoing these bolts the wheel can at once be divided and the engine taken out.

The motor is fitted with roller bearings to the main spindle and crank. The pinion on the motor-shaft meshes with an internal gear wheel, which fits into a recess on one of the wheel sides. The carburettor, which also acts as a supply tank, is of the surface type, and is made to withstand vibrations from the road. It is securely fastened to a bracket cast on the front of the crank case of the motor. Ignition is effected by a Simms-Bosch magneto-electric machine. This is also fixed to a bracket cast on the back of the crank case. On the rear wheel of the bicycle is a free-wheel clutch with chain ring, and a chain connects up to the usual sprocket wheel on the bottom bracket axle, the pedals being used to start the machine and assist it on steep grades. The carburettor holds half a gallon of petrol, which is stated to be sufficient for a run of fifty miles.

Big Men in a Big Deal.

With a capital of \$30,000,000, divided into \$10,000,000 6 per cent cumulative preferred stock and \$20,000,000 common stock, the International Crude Rubber Company was incorporated at Trenton, N. J., last Monday. Its objects are of a most general character, and the charter specifies that it is to operate in Mexico and South America.

The incorporators were H. M. Sadler, George Pope, of the American Bicycle Company; George F. Brown, W. A. Towner, C. G. Palmer and Alden S. Swan.

Later the following directors were elected: Charles R. Flint, of the United States Rubber Company; Henry H. Rogers and John D. Archbold, of the Standard Oil Company; Albert C. Burrage, president of the Amalgamated Copper Company, of Boston; A. H. Alden, president of the New York Commercial Company, dealers in crude rubber; Samuel P. Colt, president of the Industrial Trust Company, of Providence, R. I.; Lester Leland, general manager of the Boston Rubber Shoe Company, and T. Jefferson Coolidge, jr., president of the Old Colony Trust Company, of Boston.

William M. Ivins, whose firm filed the charter, stated that the purpose of the company is to "buy crude rubber in the markets of the world and sell it to manufacturers. It is a commercial corporation, and in no sense a trust. As business is done on a large scale these days, it was thought that the best results in this line, as well as in others, could be obtained by an association of capital sufficient to do business on a large scale, trading wherever rubber is grown.

"It is not a manufacturing concern and has no connection with any such concerns. Several firms of importers who are now doing business will in all probability be absorbed."

It is reported that the new company expects to secure important concessions on the Amazon.

St. Joe's Dealers Join Hands.

A Cycle Board of Trade has been organized by dealers in St. Joseph, Mo., who do a rental business and sell on the instalment plan. S. G. Skinner, F. P. Lee and G. M. Seick met recently and discussed the formation of an organization. Letters were written to other cities where such organizations exist for information in regard to the methods used, and as soon as replies have been received another meeting will be called and a permanent organization perfected.

This banding for their own protection was forced upon the dealers, they say, by the war in rental rates which has been going on between the dealers for some time. Rates for renting wheels had been cut to twenty-five cents a day, and a further cut of ten cents was contemplated by some of the dealers.

When the organization is perfected it is probable that the renting of wheels will be entirely done away with, as the dealers claim that it does not pay. A fixed rate of payment for wheels purchased on the instalment plan will also be agreed upon.

CORP SAYS IT'S PERFECT**Tells the Providence Engineers the Limit of Cycle Improvement is Reached.**

Mechanical engineers are not generally credited with possessing any great love for the bicycle or its makers. Rule-of-thumb building and unscientific designing have been freely charged against the latter, and the fact that evil results have not followed these alleged shortcomings has not materially bettered matters.

In a paper read at Providence, R. I., last week, before the Providence Association of Mechanical Engineers, however, Henry Corp accorded high praise to the bicycle of today. The bicycle, he said, has probably reached its highest type of perfection. It is succeeded in interest by the automobile, its offspring, which inherits from it many things.

He then sketched the history of the bicycle from the wooden affair of two centuries ago, two wooden wheels, connected by a wooden frame on which a pad was placed for a saddle. It was not until a half century later, he said, that a steerable front wheel was devised.

The hobby horse, as it was called, was interestingly described with its development by making the front wheel steerable, and, later still, the addition of foot rests. He showed how a French smith still further developed the machine by the addition of cranks on the front wheel. Mr. Corp traced the growth of the craze for riding these "boneshakers," as they were called in this country in the time of his youth, and then showed the gradual evolution of the wheel into the old high wheel, then first called the bicycle, and the first over which the world went wild.

Then came the safety. Mr. Corp said a dozen men claim the honor of having first made the safety, each with some degree of truth.

Then, following the course of evolution still further, he discussed the pneumatic tire and the comparative merits of pneumatic and solid rubber tires, a discussion settled long ago by bicyclists in favor of the pneumatic, although now being indulged in by horsemen.

Mr. Corp referred to the pleasure and benefit of riding, and then declared his belief that no other invention has ever brought such general benefit as the bicycle. He sketched the equal benefit to body and mind of the bicycle and the automobile, and spoke of the impetus given the mechanical arts by the manufacture of the bicycle, citing instances of the changes in the manufacture of wire, steel tubing, drop forgings and the like.

"Motocycles and How to Manage Them." The only book of its kind in existence. Price. 75 cents. For Sale by The Goodman Co.

Neglecting an Opportunity.

Nowhere is the decadence of "talking points" more strikingly shown than in the campaign now being undertaken by certain tire makers who propose to push double tube tires most vigorously next season.

In turning from the single to the double tube, it appears to be assumed as a matter of course that trade and the public know all about the two types. Therefore, the bare statement that one kind will be given more prominence than the other is deemed sufficient; those interested are supposed to decide in favor of one or the other without further discussion.

A few years ago such a change would have been preceded, or accompanied at least, by a flood of explanations of the differences between the two forms of tires, their advantages and disadvantages, etc.

Makers would have pointed out to interested readers the beauties of a tire that needed no cement and could not leave the rim if it were fastened properly; of a tire that would fit the standard crescent shaped rim, and could be repaired by any one, no matter what happened to it; or of one that seldom punctured, and yet could be mended in a jiffy if such an untoward accident should occur.

Along with these arguments would have gone others, dilating on the superiority of certain kinds of fabric, of construction or of attaching; each earnest and convincing—as far as they went, at least.

Nowadays, however, it is the fashion to

agree not to "talk shop." Every rider knows as much as he cares to know, so it is said, and it would be time wasted to go into any long discussions, such as were formerly in general vogue.

It is an open question whether this view is correct; to say nothing of whether it is wise.

The belief grows that the disappearance of "talking points" had had much more to do with the lessened interest in riding than has been generally supposed.

The man who was convinced that his machine or tire or saddle was the best extant was very fond of instituting comparisons between them and similar articles owned by his friends.

Even if he were only in search of information as to which was the best, he liked to get out on the roads and make experiments on his own account, or to talk the matter over with other riders who might or might not be better informed.

When such comparisons ceased to be instituted, and riders no longer talked about their machines, there appeared a void which has not yet been filled.

It exists to-day, a menace to the trade and pastime. It is worth an attempt to fill it and thus see if some good will not thereby be accomplished.

No better start could be made than with tires. Which type is really the best? Or, if this is too large an order, which type is best suited to the different classes of riders?

Bell Unnecessary with this Tire.

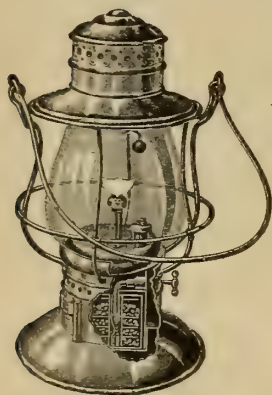
It used to be said in the early days of the pneumatic tire that with it the rider carried good roads with him; wherever he went his path was made easy.

The same idea is embodied in a wonderful invention just given publicity, with all the usual sweeping claims, by a Worcester, Mass., man. He dispenses with a tire altogether, and has replaced it with a "series of metallic shoes, made in sections, and linked together, so that they hang loosely upon the circumference of the rim. The edges of the shoes are bent upward, so that the linked chain of shoes cannot leave the rim, but the wheel itself is not fastened to the rim in any way.

"When this machine is ridden the rim revolves in the trough, or series of metallic shoes, the latter, of course, revolving also. The motions of the rim and of the trough being independent of each other, the effect is the same as if the rim ran along a flat metallic track. The sections of the shoes are made short enough so that the practical effect is that of running on a level metallic surface all the way."

Reed has not yet patented his idea, and has thus far applied it only to the rear wheel of his bicycle, but he says he expects to exploit the invention, and has enough confidence in it to make him go ahead with its perfection. He says the intention of the thing is to improve the practicability of the bicycle for sandy and muddy roads, and he claims the machine runs much more easily than with ordinary rubber tires.

Each of the metallic shoes, which are made of soft machinery steel, is covered on the bearing surface with a strip of rubber to deaden the jar. The machine makes some noise while in motion, but Reed says this is a good feature, as it obviates the use of a bell.



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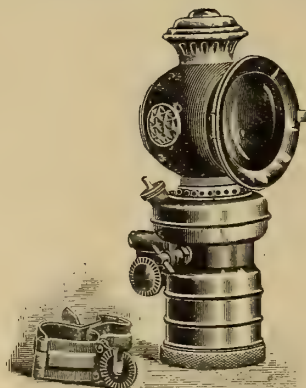
WHY

SHOULD YOU HELP YOUR COMPETITOR WIN

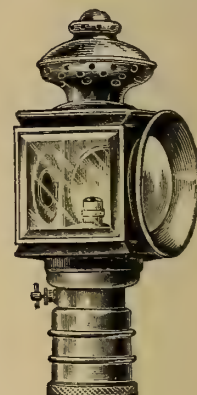
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UNBLISSFUL IGNORANCE

Two Instances that Run at Variance with the Popular Proverb.

Even at this day, when it seems as if every rider should know all about the simple adjustments his cycle is apt to require on the road, there is an amazing amount of ignorance displayed. On a recent Sunday the *Bicycling World* man encountered a rider who was bowling along in blissful unconsciousness that every revolution of his rear wheel was increasing the probability that the tire would require a trip to a repair shop before it could be used again. The tire was rubbing against the lower stay, and had already been worn so that there was a mark on it all the way around.

The rider had at last become aware that there was something wrong, and was just jumping off to investigate the matter. The fact was plain, but the cause, and with it the remedy, was a sealed book to the rider. He looked at the machine in a helpless sort of way, and at last asked the *Bicycling World* man, who had halted out of curiosity, what was the best thing to do.

The matter was very simple. Neither the axle nut nor the chain adjuster had been securely fastened, and the pull on the chain, probably when climbing a hill, had slewed the axle around until the tire touched the frame. This was explained to the rider, but whether he grasped the idea or not, he was still unable to apply a remedy.

"How can I bring the wheel around straight?" he asked, evidently having no false pride in the matter to prevent his acknowledging his ignorance.

"Take the wheel this way," was the reply, grasping it just back of the crank hanger, "and push it over until it is in the centre of the frame. Then tighten the axle nut"—which proved to be loose, as was expected—"and screw up the chain adjuster. Now you are all right."

With profuse thanks the stranger mounted his machine, and rode off, glancing down occasionally to see if the wheel remained in its proper position.

On another occasion, a rider was encountered who was annoyed by a clicking noise which he did not appear to be able to locate. It did not need his question as to the cause of it to call attention to the click. It came at regular intervals, apparently with every revolution of the wheel. It was owing to this that attention was immediately directed to the front wheel, whence the noise seemed to come. There, sure enough, was a loose or broken spoke, striking the forkside each time it went through.

It was plain that the rider would not know what to do even when the broken spoke was called to his attention; so a dismount was made by both riders and an examination made. The spoke proved to be broken at the

nipple—a rather unusual happening—so the simplest thing to do was to twist it around its nearest neighbor, in order to prevent its rattling. Then a start was made, and the owner of the machine with the broken spoke seemed delighted to find that the noise had disappeared.

Can it be that a practical immunity from such little incidents has bred a race of riders who would not know what to do if things went wrong? Or were these two riders unusually ignorant?

Two Tradesmen up for Horse-scaring.

After a considerable interval, liberally punctuated with threats, and no small amount of hesitation, the Worcester, Mass., horsemen, who complain of motocyclists and automobilists because they persist in using the public roads, have taken action.

They brought suit last week against L. C. Havener and A. L. Adams, the motocyclists who are alleged to have frightened their horses, as related in the *Bicycling World* a few weeks ago. Messrs. Havener and Adams have been cited to appear at the January term of court and hear the charges that will be brought against them. The aggrieved horsemen—who are suffering from both mental and physical injury—will relate the incident as they imagine it happened.

The motocyclists' story of the affair has already been told in these columns. In brief, it is alleged that one team took fright and ran away; before it was stopped it managed to collide with a second one, and start it off at a rapid pace, also. In the collision both drivers were thrown out and hurt.

It is asserted by Havener and Adams that they were not even the cause of the accident, and that the result would have been the same had they been miles away. They saw the first horse as they were descending a hill; it was beyond control then and running toward them, which would have been rather a strange proceeding had their machines been the cause of its unusual actions. Furthermore, the collision took place after the runaway horse had passed them.

The accused men are not worrying unduly over the matter. They are both members of the Associated American Motocyclists, and that organization will aid them in defending the suit. Should the charges be seriously pressed, another decision affirming the right of motor vehicles to use the public highways is confidently looked for.

Stir in Tube Trade Coming?

Press dispatches from Pittsburg say that the National Tube Co. has closed a deal for the plant of the Standard Seamless Tube Co., Ellwood City, Pa., for \$500,000. This includes ten acres of land and a plant with a capacity of sixty-five tons of finished steel tubes per day. The services of R. C. Steifel, who invented all the machinery sold to the Shelby Steel Tube Co., and has since improved on the inventions, go with the deal. This places the National Tube Co. in competition with the Shelby Steel Tube Co.

KEATING'S MOTOCYCLE

It's a Bicycle in which Some New and Clever Ideas are Embodied.

It was to have been expected that when Robert M. Keating started in to design a motor bicycle, something especially good would result.

When, therefore, the *Bicycling World* representative was invited a few days ago at Middletown, Conn., to inspect and ride the latest product of the Keating brain, he looked for something that would be a worthy successor of the Keating bicycle, the machine which claimed to be "365 days ahead of them all" in the matter of lightness and strength. Nor was he disappointed.

The machine complete with motor weighed—on the scales—just seventy-six pounds. In design the frame is a close copy of the diamond frame in universal use. In fitting the motor to it great ingenuity has been displayed; compactness and unobtrusiveness are the distinguishing features, the engine and gears being completely encased, while the tread does not greatly exceed that of the ordinary bicycle.

The motor, which develops full one and three-fourths horse-power, and is readily detachable, is placed in front of the diagonal frame tube, close to the crank hanger. The carburettor is fitted to the frame back of and under the saddle, and an ingenious method of discharging the exhaust gas is employed. A backward push of the pedal throws the motor out of gear, and another push applies the brake.

Full description and cuts of the machine will be forthcoming in a few weeks. Pending this, it may be said that the machine has proved to be an unequivocal success, and that it possesses many new and meritorious features, the outcome of the inventor's practical experiments.

Cycles Destroyed at Chicago.

Some \$60,000 worth of bicycles and general merchandise, the property of Sears, Roebuck & Co., the big Chicago mail order house, went up in smoke and flame last Friday. Ample insurance was carried.

The fire started in the engine room, in the rear of the basement of the building, No. 171 to 177 West Adams street. For a time it looked as if the entire building, which had been recently remodelled, would be destroyed, with more than \$200,000 of merchandise, but after several alarms had been sent out the firemen managed to get it under control.

When aldermanic "strikes" like that of McEneaney are made it ought to be automatically, one strike and out for the makers. Such "strikes" are too transparent.

METRIC SYSTEM

How its Adoption Would Help Extend our Export Trade.

The fresh effort being made to secure the enactment of a bill establishing the metric system of weights and measures in the United States invites a renewed statement of the objections thereto and the arguments in its favor, says the New York Tribune. Neither of them differ greatly in character from those that have been advanced in the past, but their relative value has been modified with time. Many of the considerations that recommend the proposed policy gain in cogency from year to year, whereas there appears to be no corresponding strengthening of the opposite side of the case. And if, as seems probable, this shifting of the balance shall continue steadily, the eventual adoption of the system in America is only a question of time.

One drawback to the change is the mental inconvenience to which it will subject the public for a time. Still, the "litre" so closely approaches the quart, the "metre" the yard, and the "kilogram" two pounds, that the popular mind will find the readjustment comparatively easy. It is mainly in the matter of land measurement that trouble will be experienced. In the second place, there must be a recasting of prices in many classes of merchandise. But this is an operation with which merchants are already familiar, owing to frequent fluctuations in values. Thirdly, the innovation will involve more or less expense. The retail grocer will be obliged to purchase new scales and measures, and manufacturers of certain kinds of machinery and hardware will find it necessary to equip their shops afresh. This, perhaps, is the most serious objection to the change. Yet it is only temporary, while the benefits to be derived are permanent.

The practical advantages of the metric system, if not numerous, would certainly be great. It would simplify the countless computations of business in two ways. A decimal system of weights and measures, like the decimal system of coinage, facilitates all calculations in which fractions are involved. And the use of the same standard which prevails in countries from which we import largely would render it unnecessary to convert metres into yards and litres into bushels or gallons. It must be remembered that at the present time an immense quantity of merchandise imported from Europe is bought by one standard and sold by another.

An even more important consideration is that nearly all parts of Europe where America sells her surplus products use the metric system. This is particularly true of the Continent. Russia has long been almost the only exception to the general rule, but she has recently taken preliminary steps toward

falling into line. England is practically the only large buyer from this country which has not yet done so. Even the South American countries and the Philippines are up to date in this respect. Now, while the difference in standards is of little consequence in certain kinds of merchandise, it is exceedingly important in others. Many foreign buyers of machinery, for instance, frame their specifications for bidders according to the metric system, and it is useless for any one to compete for the contract unless he has adapted his shop equipment and methods thereto. Indeed, a few enterprising establishments in this country have already awakened to this fact, and have acted accordingly. Thus it will be seen that the extension of American trade is in some degree dependent upon an assimilation of our standards to those of our customers.

Nor is it in commerce alone that the intimacy between this country and others is steadily growing. The affiliation between scientific men at home and abroad is becoming closer yearly through travel, personal intercourse, international congresses and the necessary scrutiny of reports of one another's researches. This literature is full of citations of weights and measures, and is valuable only as this is understood. Indeed, regardless of trade and science, the whole educated part of the American public is encountering, with increasing frequency, similar references in the newspapers and magazines. These will cease to puzzle the general reader when the civilized world has a uniform standard.

Cycles as he Imagines Them.

The horse editor of the Minneapolis Tribune has been trying his hand at giving a résumé of the 1901 bicycles, and it is to be hoped that his readers have been duly edified by his efforts.

"If you intend to ride a wheel next season," he says, "you will have to step high, so the bicycle dealers say. This may come as a blow to many of the gentler sex who are still under the influence, but it is, nevertheless, a fact, as all the standard wheels on the market next year will be equipped with long cranks.

"The inventor has decided that the present standard weight of the bicycle must be reduced. It will be a matter of only a few pounds, or, in other words, the 1901 models are not allowed to exceed at the utmost twenty pounds.

"The inch tubing will again be brought into use, which will be a gratifying fact to many manufacturers who conduct their efforts on a large scale, and have had immense stocks of inch pipe lying around for the last two years.

"Local manufacturers will next year be a leading factor in the market. A large percentage of the bicycles purchased in Minneapolis the coming season will be the fruits of local industry, and individual manufacturers are already rushing hundreds of orders to be got out before May 1, 1901."

NEEDED CHANGES

Some Apparently Simple Alterations that Would Improve the Motorcycle.

It may be argued that no little ingenuity has been expended on the arrangement of the various levers with which the average motorcycle is studded, and that each has a separate function and is placed where it is for a distinct purpose.

For example, the mixture valves are usually placed nearest to the rider, as being the most used; the compression lever is so arranged as to preclude the jarring of the machine from opening the tap, while the sparking lever, the one most seldom moved, is placed furthest away. All these points have been carefully thought out, and the arrangement used which appeared to give the best results.

This is good as far as it goes. But it would seem that a great deal more could be accomplished if designers were but impressed with the desirability of improvement and would set about bettering matters. This view is entertained by a rider who calls attention to the inconvenience, not to say danger, of removing the hands from the bars to operate the machine.

This should not be, he says. It is quite possible to make the rotation of the left handle not only make and break the circuit, but also to advance and retard the ignition. The right handle might well be similarly rotatable for the purpose of opening and closing the throttle valve, and this might be further arranged also to relieve the compression either by opening a separate tap or by opening the exhaust valve after the throttle has been closed. The chimney and float of the carburetter should not be situated where they are not only invisible to the rider, but almost inaccessible to him. Some of these points, which are by no means exhaustive, have already received consideration in some quarters, but they should become the rule instead of the exception.

Curtis Sues A. B. C.

In the United States Circuit Court at Trenton, N. J., last week Albert B. Curtis, of the Reed & Curtis Machine Screw Co., Worcester, Mass., instituted suit against the American Bicycle Company, asking an accounting, an injunction and damages for an alleged infringement of one of the Curtis pedal patents.

In the bill of complaint it is alleged that an injunction was obtained against the Lozier Manufacturing Co. in a similar suit, to which injunction the defendant in the present suit is claimed to be a party.

Hartford's New Tire.

The Hartford Rubber Works is putting out a new tire, the Hartford Special; it is a single tuber, of course, but it has a thread fabric and is essentially a speed tire.

COMMERCIAL EDUCATION

One of the Necessities of Our Position as a World Power—Other Nations Alert.

It is very often said that the business man's school is the practical world, and that nothing can take the place of actual experience. The same thing was said of the doctor and the lawyer, and in fact of almost every one else who now spends a few years in an educational institution before launching into his profession. The law school had a long struggle against the system of reading law in a lawyer's office. The graduate of the technical school had to meet the boy who had worked his way up in the shop from the apprentice's rank without outside training. In fact, says American Trade, all education of every kind and quality has had a prolonged contest against those who declared that they were not believers in it, and it is only at a rather recent time that the college has been able to find an excuse for itself that everybody was bound to respect.

To-day fewer and fewer persons can be found who belittle the influence of a higher institution of learning, and profess, indeed, to look upon it as a positive harm to the man who takes the courses in it, and thus, as they say, makes himself less fit to fight his way through the world. The necessity for a defence of the institutions of secondary teaching, the "common schools," long ago disappeared in this country, and education in all its forms has been gaining friends at a rapid rate in every stratum of society.

If the engineer, the chemist, the physician, the lawyer and all the rest of them require a special kind of education, why do we stop short at the man who is going to devote himself to commerce? If the technologist, who makes the goods for sale, is to be specially educated for his work, is it less essential that the man who attends to the sale and the distribution of the merchandise should be properly brought up to his branch of the trade? Does one require so much more knowledge and cleverness than the other?

On a little thought most men will say not, and we will enforce ourselves in this view if we consider for a moment what is being done in foreign countries to promote and encourage commercial education. There is not an important commercial country in Europe—few, indeed, of the unimportant ones—which does not give a care to the establishment of commercial schools, and they have done so much and have got such a long way ahead of us that there is no hope of our catching up to them for some time to come.

We are starting along the right road, it is true. The cause has recently profited by such generous gifts as Mr. Converse's to the University of Vermont, and Mr. Tuck's to Dartmouth, where chairs and departments of instruction in the commercial sciences

have been established. A part of the public funds available for educational purposes is gradually being turned aside into this new channel, and is going to the support of commercial high schools. In Brooklyn, for instance, Mr. Charles A. Schieren, Mr. Richard Young and other public spirited business men have exerted a distinct influence in this direction, with entire effect and to excellent purpose. The whole country has begun to talk about the question, and there are signs on every hand that we are becoming well aroused as to the need of injecting a new element into the educational system of the country.

There is still some uncertainty as to the exact direction which these efforts should take, and although we cannot go across the sea and bring back for our own use any ready-made system that will precisely fit our needs, it is not to be disputed, of course,



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that we may learn a great deal from other nations. The world is not so large, and men and societies of men are not so different, that we can afford to neglect each others' experiences. A study of foreign methods leads to the conviction that we are not yet doing all that we ought to do. England and every country on the Continent has many lessons to impart to America in this regard, and the close observation of systems, as they have been developed in Europe in the past four years, is beginning to awaken in us a sense of our own shortcomings.

Although much of the development in Europe is quite recent—since industrial competition among nations has become more keen and each has been put upon its mettle to hold its own place in the world, especially as against German encroachment—it is by no means a wholly new thing. The Ecole Supérieure de Commerce, in Paris, for instance, dates from an early year in this century, and already in the forties, under the

management of a famous French economist, Blanqui, wherefore it was in his time and long after his death known quite generally as "Blanqui's School," it enjoyed a high reputation as a training academy for young bankers and merchants. It existed almost without a counterpart of its own rank for two generations.

For the more modern advancement we are indebted undoubtedly to Germany, where all forms of technical and commercial education have reached a high state of development.

The young German who knows one thing and knows it well has become a kind of terror in trade all over the world, and his example, or what is recognized to be most good in it—his education being no small factor on the list—has called forth general emulation in other countries. In England in particular the rising commercial influence of the German race caused a veritable fright, and what should have been done without such a goad came as a necessity.

It followed as a matter of course, and only our own comparative isolation in a national way has saved us from feeling the need to bestir ourselves more actively many years ago. Since the country has become a participant in the world's principal commercial movements in spite of itself, since we have advanced into a position as a colonial world-power with political as well as economic relations of international scope, the die is cast, and there can be no turning away from the destiny which awaits us in common with every other large, wealthy and populous commonwealth. The commercial future of the country is assured by reason of our rich resources and the native energy and talent of the people. The only question is how wisely, how scientifically and how certainly, steadily and rapidly our progress shall be made.

The answer to this question will depend very largely upon the success to which we shall attain in working out the problems of commercial education and the diligence with which we apply ourselves to the task of training up the rising generations.

Resilient and Non-Puncturable.

The Davis Tire Company, with \$10,000 capital stock has been formed at Springfield, Mass., to undertake the manufacture and sale of the Davis Common Sense Tire. The officers are: President, Charles Van Auker; vice-president, E. C. Davis; treasurer, William F. Ellis; directors, J. L. Legein and O. J. Desmond; clerk of corporation, R. A. Knight.

The tire is said to have been used with good results on bicycles and automobiles, and is described as being resilient and non-puncturable, and it has the wear of the solid tire, without the rigidity. The tire is broadly covered with patents in the United States and in foreign countries.

The Davis company is looking around for suitable factory quarters, and has been approached by various towns in Massachusetts and Connecticut desirous of having it locate with them.

MOTOCYCLE PREPARATION

Some of the "Petty Trifles" that Make for Safety and Comfort.

An amusing as well as instructive discourse on this subject is given by a writer in "Cycling." Premising his talk by the remark that it is addressed to novices, he says:

"Everything, then, is ready for the trip, as far as the motor goes. The business end of the sparking plug is nice and clean, the batteries have plenty of electricity in them, the trembler is beautifully adjusted, and the motor itself, well oiled, is working sweetly. The spare tank is well filled with good fresh petrol or motor spirit, and the lubricator part of it contains plenty of good thick lubricating oil. In your right hand breast pocket you have a reliable map of the country through which you intend to travel. That's splendid!

"As a companion for the map, run and fetch that little book which tells you where you can get petrol on the way. You'll probably find it at the bottom—got it here? All the better. That may save you plenty of trouble. If we had but had that in our pocket on a recent trip to Wales, we should not have had a real bad soaking while we

were hunting all over the place for spirit. Good!

"Open your wallet, or toolbag, and let's see what you have got in it. Turn everything out, and then we'll put them back one by one—as the animals, you know. That's the idea. Now, here's a spare sparking plug; put that in. One moment, though; where's the box for it? Better not run any risks with the plug on which you have to fall back. Put it in its box; that's it, that box-wood thing—there, it's safe.

"Now another trembler. Oh, yes, you must have a spare trembler. Sometimes the platinum on it, just where it meets the screw, wears off marvellously fast. Occasionally even the head of it tumbles off. So put that trembler in. And that brass platinum pointed screw, too. Put them both in; you never know when you may want them. That's right.

"Have you got an exhaust valve, complete with spring? You remember what we said. Outside? Well, fetch it in, then. Even an admission valve complete would not be amiss. But if you haven't that, let us have the spring alone.

"So now we have a sparking plug, trembler, platinum pointed screw, exhaust valve and exhaust and admission springs. What else do we want, we wonder. H'm! What about an ampèremeter, which tells you the strength of your battery? If you had a

stoppage, and found there was no spark at the plug, how would you know whether the batteries had run out or that there was a broken wire or something? So we'll put in this little round ampèremeter.

"A little coil of good, decently stout iron wire wouldn't be out of place, either. You can use it for split pins and lots of other things. When we went out in a car the other morning, at 5 o'clock, an inch of that wire saved us from three hours' toil. Part of our friction clutch had worn away, and the wire supplied the missing link. And some insulated wire, too, had better be included. Let's have quite two yards of that. It may come in very useful if you get a drenching. Take a ball of thick string, also. Many are the uses of a little bit of string.

"Now, concerning the tools. Here we are—large shifting spanner, small spanner, sparking plug box spanner, screwdriver—right you are! How about a small file, though, and an oilcan? And really you must have a squirt can for persuading petrol down the compression tap at times, when the motor is rheumatic and very stubborn. Got them all outside? Get them in, then. And while you're about it, bring in a repair outfit and a pump, and just make sure the outfit is complete. When we were on a little trip to Dublin, recently, we had a fearful double puncture, and on opening our repair outfit discovered there was no patch rubber in it. That was nice, wasn't it?

"Now, get some emery powder in a piece of paper or a pill box. You may have to grind in your valves, especially as it is a rather high-powered air-cooled motor.

"Now we think you're ready."

The Tailored Orient

the experiment of high gear and long cranks, when properly fitted to the rider, may be guaranteed to save 25 per cent. of power and add 50 per cent. of pleasure.

See that your bicycle fits you if you wish the best results.

THE NEW

Orient

MODELS.

WALTHAM MFG. CO., Waltham, Mass.

Orient Milaminit

the professional racer for 1901, like the Tailored Orient is ready for winter delivery—ahead of competition. Write for assignment, do not delay. There may be others in your town looking for this—the best proposition.

IF IT'S A SEARCH-LIGHT, IT'S SAFE.

BURNS GAS



BURNS OIL



1901 Quotations and Electros Ready.

BRIDGEPORT
BRASS CO.,
19 MURRAY ST.,
NEW YORK.

CYCLE OF TOMORROW

How it Appears through the Field Glass of an English Editor.

Dealing with the subject, "The Cycle of To-morrow," The Cyclist says: "Despite all that has been said and written of the changelessness of cycle design, it were a bold man who would venture to prophesy the changes in construction which may come about during, say, the next three years. In fact, it is only the thoughtless or superficial observer who charges cycle designers with lack of progressiveness.

"The changes of the last ten years are in themselves sufficient to disprove the charge, although the previous decade—practically the first of cycle history—naturally saw more rapid development and more frequent improvements. It is true that the last ten years have been dominated by one main idea—simplification; the great majority of cycles have been reduced to the smallest possible number of parts—guardless, brakeless, almost springless—denuded of everything that could be called a complication, even the simple steering-lock enjoying but an ephemeral popularity.

"The cycle of the past few years may be regarded as the simplest type that has been in vogue since the high bicycle days.

"Asked why the cycle was thus reduced to the severest simplicity, why variable gears, spring frames and similar additions to the comfort of cycling have been allowed to lapse, the average observer would, with some show of reason, reply that these things and others had been tried and proved to be impracticable, that experience had demonstrated that the guiding motto of the cycle engineer should be 'simplify, simplify.'

"While it is perfectly true, however, that the introduction of additional parts in the gearing and the frame of cycles has hitherto been unattended with success, it is unfair to assume that such additions must always be useless complications and doomed to financial failure. The fact is, the science of cycle construction is so rapidly progressive that the impossibility of to-day may become the common practice of to-morrow. The cycle designer of ten years ago, had he devised a two-speed gear, for instance, that might be profitably made now, would probably at that time have lacked the machinery and appliances for making it at once accurately and commercially. Moreover, the mere fact that there have been change gears and spring frames that have failed is in itself a help to the design of mechanically and commercially successful ones, the designer of to-day being able to profit by the experience of predecessors and avoid the pitfalls which wrecked them.

"There is no doubt that inventors have been to some extent deterred from stirring from the beaten track, and have been inclined to confine themselves to the perfection of existing designs, by the fact there is 'no

demand' for any specific improvement; but this argument against progress will not for a moment bear the light of reason. Did the public demand rim brakes? Did cyclists press inventors to give them free-wheels? Was it popular clamor that led to the introduction of pneumatic tires? In other words, how can the public be expected to demand a thing yet to be created, or, if existent, how are they to pronounce for or against it until it has been presented to them in a form fit for trial and criticism?

"It is not given to the average cyclist to mentally measure the loss of ease and comfort that he suffers, say, from vibration or a fixed gear; but the history of the free-wheel is sufficient to show that the cyclist does very readily appreciate a good thing when placed before him in a tangible form for comparison with the arrangement which it aspires to displace.

"Signs are not wanting that we are on the eve of an era in construction when the cycle will cease to be so closely modelled according to the form best suited for path racing. Cyclists are to have a machine adapted for easy riding on the road, equipped for comfort and ease of propulsion under all ordinary circumstances. The two-speed gear—at least one form of which may be said to have already achieved success—and anti-vibration devices will go far toward this end.

"That the march of improvement will go beyond these things cannot be doubted by those who recall the ceaseless flow of improvements which have made the modern cycle a thing to be looked upon by the whole mechanical world with pride."

Schack Sued by Specialty Company.

Suit has been brought in the United States Circuit Court at Buffalo, N. Y., by the Buffalo Specialty Mfg. Co. against William G. Schack for damages for alleged infringement on the former concern's patent on tire fluid. Damages are asked to cover the plaintiff's injury from a business standpoint, and an injunction order restraining Schack from continuing the alleged infringement is also sought. The defendant is directed to appear at the February term of court and answer the complaint.

Preserves as well as Protects.

It has been charged against most tire fluids that they injure the rubber and thereby shorten the life of the tire. For this reason many riders fight shy of them, preferring to have punctures repaired in the usual way. But an English tire fluid, happily named the "Millennium," is advertised as a rubber preservative, as well as a puncture stopper. It is described as a creamy compound, and vended in the same form as tire solution.

No Pump Needed.

A self-inflating valve has been brought out by an English firm, and is said to be simple in construction, yet effective and certain in its action.

WEST INDIAN OPENING

The Opportunity a Favorable One for Introducing American Goods.

An American exchange has been established at Pointe-à-Pitre, Guadaloupe, West Indies, with the admirable purpose of introducing various lines of American manufactures not known in that market and of substituting American for other goods in lines already established.

"The exchange is to be situated in the building occupied by the Chamber of Commerce," writes Louis H. Ayme, United States Consul at Guadaloupe, "and all samples and catalogues are to be well displayed and inducements offered to all interested to visit it. The manager speaks and writes English, and is thoroughly acquainted with trade relations between this country and the United States, France and England. He will send out circulars of inquiry, and will solicit from manufacturers and others desirous of doing business here catalogues and samples of what they have to sell.

"There is no probability of any business being done in agricultural machinery or windmills, and there are some other lines for which there is no demand; but all these are matters upon which the American Exchange purposes to give information."

American manufacturers are warned that it is useless to send to Guadaloupe catalogues without prices. The most detailed information should be given, with prices and discounts. Consul Ayme declares:

"One sample talks more loudly than a dozen catalogues in a foreign language. With samples, catalogues, prices and discounts, the managers of the American Exchange can explain and can induce merchants to try the goods.

"During the last three years I have received tons of catalogues, representing a very large expenditure in printing, postage, etc., and, for the most part, it was so much money thrown away. The same amount invested in samples sent to an energetic and responsible agent would be far more likely to produce results.

"The exchange will pay all freight expenses, duties here, etc., and will depend upon the discounts and other legitimate profits of regular business for its gains. It also will receive on consignment sample orders of articles in well established lines."

Loans That Kept the Keating up.

The investigation of the Middlesex Mutual Assurance Co., of Hartford, Conn., has developed some of the debts of the embarrassed Keating Wheel & Automobile Co. The larger items, all loans, are as follows: Middlesex Mutual, \$37,812.50; Middletown National Bank, \$36,900; Central National Bank, \$2,500; Middlesex County Bank, \$15,000; C. D. Rood, \$125,000; A. L. Garford, \$20,000.

The Retail Record.**CHANGES.**

Lapeer, Mich.—B. F. Loder, will sell out.
 Pittsville, Wis.—L. L. Doud, discontinued.
 Ottawa, Ill.—Max Schulz succeeds Olds & Co.
 Clarksburg, W. Va.—W. Harrison, sold out.
 Omaha, Neb.—Boss & Merstein, discontinued.
 Victoria, B. C.—Onions & Pimley, dissolved.
 Tipton, Ind.—Thatcher & Kirtley, discontinued.
 Bellevue, O.—H. W. Hillier, removed to Lorain.
 Hielbron, Neb.—E. J. Stewart succeeds E. A. Elder.
 Greenfield, Mass.—A. H. Davey, closed for the season.
 Leigh, Neb.—R. H. Goodge succeeds Dunn & Goodge.
 Little Sioux, Ia.—H. L. Gilmore succeeds B. L. Jones.
 Youngstown, O.—The Andrews Wheel Co., discontinued.
 Howard, Kan.—Dobyns & Lewis, S. D. Lewis retired.
 Tillamook, Ore.—Harley Morton succeeds W. V. Morton.
 Antioch, Ill.—Kelly & Garrett succeed William Kelly.
 Owosso, Mich.—Duard Blair succeeds Miles Wiggins.
 Faribault, Minn.—F. D. Orne succeeds Thomas & Orne.
 Oelwein, Ia.—Ridler & Bennett succeed Hardy & Ridler.
 Smithport, Pa.—John C. Hamlin succeeds Hamlin & Redfield.
 Virginia, Minn.—A. Hawkinson & Co. succeed A. Hawkinson.
 Fairbault, Minn.—Gus Thomas succeeds Robert Brown and C. Weber.
 Fort Recovery, O.—Joseph Schroetter succeeds Schroetter & Meinerding.
 Northville, Mich.—Carpenter & Huff succeed Carpenter, Yorkes & Harmon.
 Kansas City, Mo.—Sellers Cycle Co. succeed J. E. Sellers Cycle and Supply Co.

MORTGAGES, ETC.

Kansas City, Mo.—J. E. Sellers, bill of sale, \$650.
 Dixon, Ill.—C. J. Smith, chattel mortgage for \$200 filed.
 Sleepy Eye, Minn.—W. R. Hodges, realty mortgage for \$1,500.
 New York, N. Y.—G. W. Matthews, judgment for \$128 filed.
 Great Falls, Mont.—Lewis Hirsch, chattel mortgage for \$350 filed.

NEW STORES.

Marietta, O.—Knox & Henry.
 Glenwood, Mass.—F. H. Greaney.
 Wolcott, N. Y.—Westfall & Sabin.
 Ottawa, Ill.—Armstrong & Mitchell, repairing.

FIRES.

Amarillo, Tex.—R. H. McAlpine.

Exports of the Week.

Exports of bicycles and cycle material from the port of New York for the week ending December 25, 1900.
 Amsterdam—51 cases bicycles, \$760.
 Alexandria—2 cases bicycle material, \$72.
 Abo—110 cases bicycles, \$2,524.
 Argentine Republic—28 cases bicycle material, \$3,399.
 Antwerp—7 cases bicycle material, \$255.
 Bremen—3 cases bicycles, \$95; 9 cases bicycle material, \$346.
 Brazil—1 case bicycles and parts, \$75.
 Brussels—1 case bicycle material, \$10.
 British Possessions in Africa—36 cases bicycles and parts, \$1,150.
 British West Indies—79 cases bicycles and parts, \$1,768.
 Bern—5 cases bicycles, \$74.
 British Guiana—21 cases bicycles and materials, \$553.
 Cuba—8 cases bicycles and materials, \$141.
 Christiania—1 case bicycles, \$78.
 Central America—1 case bicycles, \$26.
 Copenhagen—4 cases bicycles, \$177; 33 cases bicycle material, \$1,322.
 Cairo—13 cases bicycles, \$650.
 Dutch East Indies—15 cases bicycles, \$953.
 Danish West Indies—1 case bicycles, \$30.
 Harve—1 case bicycles, \$21; 50 cases bicycle material, \$882.
 Hango—5 cases bicycle material, \$380.
 Helsingfors—4 cases bicycle material, \$300.
 Hamburg—9 cases bicycles, \$315; 18 cases bicycle material, \$1,394.
 Liverpool—5 cases bicycles, \$134.
 London—57 cases bicycle material, \$3,355.
 Malta—1 case bicycles, \$50.
 Mexico—2 cases bicycles and materials, \$26.
 Porto Rico—9 cases bicycles, \$115.
 Rotterdam—52 cases bicycles, \$976; 24 cases bicycle material, \$598.
 Southampton—2 cases bicycles, \$85; 2 cases bicycle material, \$144.
 Stockholm—21 cases bicycle material, \$760.
 Uruguay—2 cases bicycles, \$275.

Why Crosby is Better Positioned.

"The beginning of the 1901 season finds us in better position than ever before to respond to the demands of bicycle manufacturers," says the Crosby Company, in their new catalogue now in circulation. "Not only is our own line of sheet steel parts larger and more complete, but our relations with the factories for which we are sole selling agents are much more intimate. In the particular case of the Springfield Drop Forging Company, the officers of the Crosby Company, together with Mr. Arthur D. Dana, have acquired a controlling interest. In that factory are made not only the full line of Springfield specialties, but also the Snow chains and independent expanders, the entire business and equipment of these well known products having been purchased by the Springfield company, and installed in its plant. The line of brazed goods made by the Toledo Manufacturing Company is very full and complete, and the Hunter hubs continue to be at the very head of their class."

The catalogue is complete, well arranged and well printed, as was to be expected of the Crosby Company, its fifty-two pages dealing with each and every thing that goes to make up a bicycle.

The Week's Patents.

664,052. Bicycle. Olin J. Lawry, Redding, Cal. Filed Mar. 22, 1900. Serial No. 9,693. (No model.)
 664,231. Tricycle. John T. Andreen, Florence, Kan. Filed June 12, 1900. Serial No. 20,056. (No model.)
 664,274. Bicycle. George G. Kerr, Mount Jewett, Pa. Filed May 18, 1900. Serial No. 17,126. (No model.)
 664,353. Bicycle Support. John C. Rieger, Pinckneyville, Ill. Filed Apr. 23, 1900. Serial No. 13,397. (No model.)
 663,968. Bicycle Brake. John W. Johnson, Trenton, Mo. Filed July 29, 1898. Serial No. 687,230. (No model.)
 664,281. Automatic Cycle Pump. Wilhelm Loebinger, Berlin, Germany. Filed Feb. 23, 1900. Serial No. 6,259. (No model.)
 663,913. Bicycle Brake. John E. Lindberg and John A. Olson, Jamestown, N. Y. Filed Aug. 4, 1900. Serial No. 25,958. (No model.)
 663,962. Chain Adjustment for Cycles. John B. Dunlop and John B. Dunlop, jr., Dublin, Ireland. Filed Mar. 19, 1900. Serial No. 9,257. (No model.)
 663,842. Back-Pedalling Brake. Alfred R. Anthony and Calvin T. Cunnius, Wilkes-barre, Pa. Filed June 11, 1898. Serial No. 683,242. (No model.)
 663,845. Automatic Vehicle Brake. Herbert L. Bailey, Chicago, Ill., assignor to the Handy Things Company, same place. Filed Aug. 20, 1898. Serial No. 689,109. (No model.)
 664,286. Foot Pump for Bicycles. Walter H. Perkins, Waterbury, Conn., assignor to the Waterbury Mfg. Co., same place. Filed Aug. 19, 1899. Serial No. 727,780. (No model.)
 664,341. Gripping Connection for Inflation Valves. George W. Trommlitz and James M. Gibbs, Denver, Col.; said Trommlitz assignor of his right and said Gibbs assignor of one-half of his right to Charles T. Brown, same place. Filed Mar. 15, 1900. Serial No. 8,805. (No model.)

DESIGN PATENT.

33,745. Frame for Motocycles. George D. Green, Rochester, N. Y., assignor to James H. Sager, same place. Filed Nov. 2, 1900. Serial No. 35,300. Term of patent, 14 years.

Recent Incorporation.

Toledo, Ohio.—The Union Supply Company, with \$25,000 capital, to make and deal in bicycles, automobiles, mechanical rubber goods, etc. Incorporators, John G. Swindeman, Charles M. Hull, John V. Mayhew, Walter F. Gifford and John S. Pratt.

All About Motocycles.

Post yourself on Motocycles. Study up on the cycle of the future. "Motocycles and How to Manage Them" will help you amazingly. The illustrations show the "insides" of the motor and the text explains. For sale by The Goodman Co., New York. Price, 75 cents.

PENNELL LECTURES

Jars Automobilists by Declaring Unqualifiedly for the Motor Bicycle and Why

"Side slip is a bogey," says Joseph Pennell, that eminent authority on the behavior of motor bicycles. As Joseph has suffered from side slip about as much as any one, his opinion is certainly entitled to respectful consideration, especially when it is remembered that he usually courted falls and got fewer than he either deserved or expected.

This remark was made in an address delivered by the quondam American at a recent meeting of the Automobile Club in London.

He gave his address in a conversational manner, illustrating the various points with photographs thrown upon the screen. Living as he did in the heart of London, he said, it was absolutely impossible for him to take up any form of motor car, and there were many in the same position. If they wanted a motor tricycle or a quad or a car they must have a stable and pay a man to look after the machine, or else make themselves slaves. Some had not the time to do that; and if they could get a machine they could look after and take care of, and which would run, he thought it would be an improvement on the ordinary safety of today.

He did not pretend to be an engineer or a scientific man, but an ordinary person who loved to ride on a bicycle, but who wanted something that would go uphill and against the wind.

Motor bicycles he divided into three categories: 1. Those specially built as motors. 2. Those bicycles to which the motor could

be attached. 3. Those motor bicycles which would run and those which would not.

In dismounting a motor bicycle there should be no difficulty either in jumping off backward or simply putting the feet down.

Side slip was rather a bogey. People had frequently told him he would kill himself some day, but that had not happened yet, and he did not see any reason why it should. The idea that side slip arose from the weight being at the top was a mistake. He did not think that the side slip came from the weight. It came from the fact that the motor bicycle drove straight ahead, and unless they stopped the thing the motor continued to drive. If on a bad road the rider stopped pedalling and the motor went on it would go straight ahead. He had only had one attempt at side slip, and then he and the machine turned a beautiful somersault. It came from the direct driving on the machine. Where the motor bicycle was driven on the front wheel it went along like the old ordinary bicycle.

From correspondence which he had received from all parts of the world, it was clear that intending owners of motor bicycles wanted a machine that would go up hills and against the wind. He had no personal interest in the Werner motor bicycle, but it had taken him half across Europe very satisfactorily. He had ridden bicycles for twenty-five years, but had had more fun and more amusement out of this machine than anything he had previously had.

The Delaware Rubber Co., of Philadelphia, are about to issue one of the most attractive show cards or hangers that have seen the light in some time. The fact that they cost the Delaware people eighteen cents apiece will convey an idea of their quality.

If experience is the best teacher—and it is—then our experience of

58 YEARS

in making all sorts of bells for all sorts of people,

OUGHT TO CONVINCE YOU

that we know the business pretty thoroughly, and can supply you with the best of bells at the best of prices.

We even make bold to say that we do not believe you can afford to place an order until you see our goods and get our prices.

If you will write us, we will be pleased to give you the reasons.



BEVIN BROS. MFG. CO.,

East Hampton, Conn.

(Business founded 1832.)

Also makers of Trouser Guards, Toe Clips, Lamp Brackets, etc.

Read what **Mr. J. G. Swindeman**, the prominent bicycle dealer of Toledo, Ohio, has to say about the

CUSHION FRAME

HYGIENIC WHEEL CO.,
220 Broadway, New York.

GENTLEMEN:—

The writer is so thoroughly elated with the sales of Cushion Frames that it will, perhaps, please you to share in the enjoyment. Your HYGIENIC CUSHION has certainly proved its merits and worth. I introduced the Cushion Frame in Toledo, and my efforts have been rewarded with a revival in wheeling without precedent. Many men and women, who had given up the bicycle, owing to discomfort, have, upon a trial ride only, given me their order, and are to-day enjoying comfort and ease in the daily use of their bicycles. The universal expression is "The right thing in the right place." Each sale brings me additional converts. I am confirmed in the belief that the Cushion Frame will eventually be the future wheel for general riding.

Yours very truly,
J. G. SWINDEMAN.

You will find the Cushion Frame bicycle to be a great trade winner, and your 1901 line will not be complete without it.

Write your manufacturers about them.

NOTE:—Cushions are attached only to HIGH GRADE BICYCLES.

AS A SIDELINE

British Cycle Dealers Discuss Automobiles and Carve out its Proper Niche.

No one is better qualified to speak of the dealers' lot, their hardships, discouragements and future prospects, than the individual dealer himself. He understands perfectly what can and cannot be done, and—if he is an intelligent man—what prospect of relief is held out by the advent of the motor vehicle.

The matter was gone into at length at a recent meeting of the Manchester (England) Dealers' District Association. At this meeting a paper was read by a dealer, F. D. Navell, which revealed a breadth of comprehension of the subject quite unusual.

The writer was thoroughly awake to the harm likely to result from the policy of subordinating the cycle to the motor machine. He points out that the latter must, in the case of small dealers at least, be made a side line, while it is only the dealer with plenty of capital and facilities for handling motor vehicles that can push them to the front, retaining the cycle as a side line.

As the cycle industry is not an all year round trade with many, the paper began, it practically means the introduction of side lines or failure.

None of us can close our eyes to the fact that the days of the boom and big profits in the cycle retail trade are over, while our expenses are almost as heavy. It was thought a year or two ago that, as cycles were used more in the winter than before, the selling season would be much longer, but, from my own and most other agents' experience, I am sorry to say that it appears to be shorter. This, with smaller profits, and, with a great many, not any bigger turnover, makes us look about for something to help us over the winter months. The energetic business man would like something to occupy his time, as well as bring more grist to the mill, and for the idle, unbusinesslike trader, who cannot, or does not, provide for the winter months, it is a stern necessity.

The necessary outlay is one of the great drawbacks that the cycle agent would have to face. Unlike cycles, I think you will find all the makers will have cash for motor cars when the order is placed; in any case, on delivery, except in rare cases. This means ready cash, and few cycle agents, after the winter's pinch of quiet trade, would be prepared with the needful, and to wait until the summer is nearly over would be a mistake.

The average cycle agent has not the room, the capital, the knowledge nor the time in the summer to devote to the sale of cars, without neglecting his general cycle business, whose season is too short. But for any one who is peculiarly fitted to take these up, my advice is to acquire your experience by running a standard or noted make of car

for a season, and if you can get an agency for the same, well and good. If you do not wish to lose money, buy the best, and sell this before the newness has worn off. Motor making in this country is in its infancy, and improvements are being made with almost every new car, and what may be an up to date car one month may be considered out of date the next.

In conclusion, I would like to say that for any practical, methodical business man with capital, I consider the opening of a depot in suitable or large centres exclusively for the sale of motorcycles, cars, fittings, accessories and motor spirit would be one of the best investments I could think of, and if I had not so many irons in the fire I would immediately invest several thousands in opening one, as they are coming things, and money, and plenty of it, is to be made out of them, and now is the time to start, before the crack builders make a move, or before the makers open branch depots, which they are sure to do after a time if they do not get suitable agents to represent them in the large centres.

What Retards Progress.

No rider who has "bucked" a head wind for any considerable distance has any doubt as to what opposes the greatest obstacle to his progress. Just what it figures out in percentage he may not know, but he is quite sure that windage discounts all other impediments he encounters.

Tire resistance is the next opponent to be reckoned with. Competition between tire makers is no longer as keen as it was in the first half decade of their use, and about all the average rider knows is that a thread fabric gives better results, as far as speed is concerned, than any other. Beyond that he does not care to go, and very frequently he will take a close-woven fabric in preference in order to secure protection against punctures. The result of an investigation into this subject is given in a recent issue of the Journal of Engineering, and affords interesting reading. The greatest resistance a bicycle encounters, it appears, is wind pressure, the next is due to the tire, and by far the least to the transmitting mechanism.

The air resistance will vary with the pressure of the air, the velocity of the machine and the area exposed, and this latter may be reduced to about 1.5 square feet effective area by the rider bending forward.

The tire resistance varies enormously with different makes. The efficiency of the worst was only 42 per cent, while the best gave 70 per cent, which is equivalent to saying that, other things being equal, with the same expenditure of energy a rider would cover seventy miles with a good tire, and only forty-two miles with a bad.

The loss of energy by chain gear is comparatively slight, the best showing only 2 per cent in transmission, while the worst gave 10 per cent, and figures obtained with chainless gears were almost identical, although slightly in favor of the latter.

ON THE HORSE

There's Where the Burden of Blame Rests, Say Several Legal Lights.

It is probable that for some time to come horsemen will continue to cry out against the motorcycle and similar vehicles. Their right to the road will be denied, their liability in case of accident asserted. Attempts to mulct them with heavy damages will continue to be made.

The reaching of the last stage is what is to be hoped for in many cases. The result can never be in doubt where reasonable care has been exercised by the user of the motor vehicle. Decision after decision is being rendered laying down in unmistakable language that motor vehicles have equal rights with horse-drawn ones, and making plain the determination of the courts to uphold these rights whenever called on to do so.

Occasionally a court may be found that will take the opposite view; but in nearly every case the decision is made without due consideration having been given the subject, and the matter has only to be carried higher to obtain a reversal of the decision.

Extremely significant is the language recently used by Judge Sutherland, of Rochester, N. Y., in reversing a case of this kind. "The horse," said he, "has no paramount or exclusive right to the road, and the mere fact that a horse takes fright at a vehicle run by a new and improved method does not give the injured party cause for action."

He added that in order to obtain damages evidence that the steam carriage was managed carelessly or that road rules were disregarded must be submitted. In the absence of such testimony the decision of the court below was reversed.

Another point emphasized was that exhaust steam could not be declared a nuisance if kept within reasonable limits. "Reasonable" presumably means that the view of the street must not be so clouded as to cause danger of collision.

"Case and Comment," a legal journal, in reviewing Judge Sutherland's ruling, pronounced it "unquestionably sound."

It would seem to be with the automobile as with the steam road roller and the electric car in some respects. Both may frighten horses; yet, where the laws of the road are observed, it does not seem that there is any liability for damages.

Bicycling Tour to Jamaica.

F. A. Elwell, so well known in connection with cycling tours through Europe, will this winter take a party for a similar tour through the Island of Jamaica, leaving Philadelphia February 14th. No more delightful spot for such a trip could be imagined. The roads are fine and the scenery beautiful. The party is limited to twenty-five.

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., January 3, 1901.

No. 14.

GET A SET-BACK

Warwick Assignees Fail to Clinch the Suit Against the Preferred Bank.

Further off from settlement than ever is the dispute between the assignees of the Warwick Cycle Mfg. Co. and the Second National Bank of Springfield, Mass.

The Massachusetts Supreme Court last week sustained the defendants' exceptions in the case of Alfred S. Clarke et al., assignees in the insolvency of the Warwick Cycle Mfg. Co. vs. the Second National Bank of Springfield, in which the plaintiffs were given a finding of \$11,023. The suit was brought to recover \$10,000 paid by the cycle company to the defendant on November 13, 1897, as an unlawful preference.

The cycle company was insolvent when the payment was made, and funds were obtained by the sale to the Syndicate Trading Co., of New York, of about six hundred bicycles, which comprised very nearly all the marketable merchandise owned by the cycle company. The president of the cycle company, Mr. Russell, was also a director in the defendant bank.

The court holds that the trial judge should have given requests for rulings asked by the defendant for the purpose of assuring it; that he did not base his conclusions against it upon the ground that Russell, as a director or otherwise, represented not only the cycle company, but also the bank. The court says there was no evidence to show that the bank had notice of the insolvency or contemplated insolvency of the cycle company, through Russell as director, and the trial judge should have ruled as requested, that way, and that Russell's knowledge or intention with reference to the transaction could not be charged to the defendant.

Ideal Bars do no Infringe.

To silence reports that they were infringing, the Ideal Platin Co., of Boston, desire it known that their forward extension handle bar is manufactured under the C. H. Metz patent; the Ideal people took out a license from the Waltham Mfg. Co. some time since, and their forward bars are now all marked "Patented June 13, 1899," the date of the Metz patent.

Patee Will Leave Peoria.

While press dispatches state that a deal has been "practically completed" whereby the Patee Bicycle Co., of Peoria, Ill., has acquired possession of two factories in Indianapolis, Ind., it is a fact that the negotiations have been carried to a successful conclusion. The factories in question are the Outing and Munger plants, and goods purchased by the Patee Co. have been ordered to be shipped direct to them. Both properties were in the hands of receivers, and it is understood that they were acquired at very reasonable figures.

The Patee Co. is the latest addition to the number of firms that will bring out a motor bicycle for next season. The model has been decided upon, and deliveries will begin on February 15. The price will be \$200, and the Patee Co. guarantees to refund the purchase money to any one who is not satisfied with the machine.

To Pay Bullis Creditors.

Creditors of the Bullis Ball Gear Co., of Rochester, N. Y., will shortly have distributed among them \$9,173.26, which is the cash balance now in the hands of Receiver Silas A. Servis.

Referee Eugene Dwyer filed his report in the office of the County Clerk at Rochester last week in the matter of the dissolution of the Bullis Co. He recommended that the receiver be directed to distribute the funds in his possession among the creditors, whose claims amounted to \$52,699.56, the largest single indebtedness being that of Swanton & Williams, of Rochester, amounting to \$20,000.

The Bullis Ball Gear Co., which manufactured a ball gear for chainless bicycles, went into dissolution under an order of the Supreme Court dated August 25, 1900.

Horsman Admits Bankruptcy.

E. I. Horsman, who was one of the first to take up the sale of bicycles in New York, filed a petition in bankruptcy on Tuesday last. His liabilities are \$172,000. Toys were Horsman's chief line, the bicycle end of his business having shrunk to small proportions during the past few years.

Referee Audits Receiver's Accounts.

At Buffalo, N. Y., last week, Justice Hooker, of the New York Supreme Court, appointed Bradley H. Phillips referee to "take and state the accounts of the receiver of the Queen City Cycle Co."

FIRE MAY BE THERE

But Just now Gibbs's Steel Tube Sensation Seems to be Thin Smoke.

Late last week sensational reports obtained wide circulation to the effect that a gigantic combination of tube interests was on the tapis.

It was said that the vast Carnegie interests, the National Tube Co. and the American Steel and Wire Co. would be represented and that the American Iron and Steel Co. was also to be absorbed by the combination.

The name of W. W. Gibbs, of Philadelphia, was linked very prominently with the story, as looking after the financial end of the deal. This in itself is enough to arouse suspicion, as Gibbs's connection with the Anglo-American Rapid Vehicle Co., the much lauded but extremely disappointing concern which was to dominate the motor vehicle field, is of too recent occurrence to be forgotten.

In an interview Gibbs made a qualified denial of the rumors, saying:

"I do not know of any steel tube combination, nor am I seeking to effect a further consolidation of steel and tube interests, since they are practically united in the National Tube Co., which owns almost all the important tube plants in the United States. I can only ascribe the rumors of my connection with the tube project to the fact that I am connected with a company in course of formation which proposes to manufacture tubes, under a process which is successful in England, and which, it is claimed, means a saving in cost.

"The new process referred to is Perrin's, and we have already secured the rights under the Perrin patents for the United States and Canada. Our experts are on the way to England to observe the practical working of the process.

The Shelby Tube Co.'s interests in New York denied all knowledge of the new combination. This, coupled with the other denials and the lack of any confirmation of the rumors, make it a fair inference that while there has been a great deal of smoke, there is very little fire apparent.

The absorption, by the National Tube Co., of the Standard Seamless Tube Co., of Ellwood, Penn., does not necessarily have any direct bearing on the bicycle tube trade, as it is understood that the Standard plant will be chiefly devoted to the production of boiler tubes.

CARRIER TRICYCLES

In Motocycle Form, their Manufacture Proves Profitable in Paris.

Paris, Dec. 31.—The French claim the merit of having invented most things in connection with road locomotion, and I am not so sure that they cannot be regarded as the precursors of the tricycle carrier, which has become such a popular feature in the commercial life of this country.

Parisian tradespeople, anyway, were among the first to see the advantage of this machine for getting about with light loads, and the demand for carriers is now so heavy that a large number of manufacturers are making a specialty of these vehicles. A good many of them, in fact, turn out nothing else. The carrier has thus created a new branch of trade which is likely to go on flourishing for a long while to come, as the extending use of these vehicles has made them so indispensable that the demand for them is growing heavier every year.

DESIGN OF THE FRENCH CARRIER.

The tricycle carrier is just the thing for the small tradesman, and as at present constructed there is no doubt that it is meeting all requirements; but I can't help thinking that there are still some improvements to be made in the tricycle before it can be regarded as at all perfect. The type usually adopted is a single rear wheel driving machine, with the carrier placed between the two front steering wheels. This is convenient in many ways, because the rider is able to see if he has enough space to pass in and out of the traffic, and at the same time he has got the carrier always in view, which is a matter of some little importance when carrying a large number of parcels, as if not properly secured there may be some possibility of the top ones being jerked out. But with this arrangement it is not easy to fix upon a satisfactory design of tricycle, as the load and weight of the rider have to be carried on the axle and on the longitudinal tube carrying the driving wheel. The axle has also to be pivoted on the longitudinal tube, and this tube has to be made very long so as to get sufficient clearance behind the carrier. Thus the machine is composed essentially of a long tube pivoted on the centre of the axle.

SOURCE OF WEAKNESS.

This is obviously a source of great weakness, as the heavy strain must in time tend to permanently bend the tube, and there is also an entire absence of lateral rigidity. The driving wheel often gets out of the vertical plane and wobbles in a way that suggests a considerable loss of power, and when a machine reaches this state it can only be sent back to the maker. The tricycle carrier is capable of so much improvement in the way of strengthening the frame, without

adopting the usual device of using very big tubes, that it is surprising that manufacturers should not have given some attention to the matter instead of slavishly imitating the types which find most favor among buyers.

COMPETITIVE TEST OF CARRIERS.

An attempt was made last week to show up the practical character of tricycle carriers by organizing a race between Paris and Versailles, a distance there and back of about twenty-three miles. The day selected was not a very favorable one for high speeds, as the roads were covered with mud, and those who know anything of the route between Paris and Versailles can understand what this means. The competitors, each carrying a load of 125 pounds, had first to climb the Suresnes hill, having a length of about a mile and a half, and two short hills had to be negotiated before coming to the famous Picardie gradient, at the entrance of the old capital of the Rio Soleil. There were upward of sixty competitors, of whom the majority were lads riding the machines which they use daily for delivering parcels, and there were also several professional cyclists who had been engaged by the makers of tricycle carriers. The only professional who showed up well was Garin, who alone succeeded in going over the whole course without pushing his machine up the Picardie hill, but he was beaten on the down grade and could only finish fourth, the winner taking 2h. 11m. to cover the full distance there and back. Under the circumstances this may be regarded as a creditable performance, and it shows that not only for city but also for suburban work the tricycle carrier is the quickest and most economical instrument for delivering parcels. Supposing a man wanted to transport parcels between Paris and Versailles; he would probably save a couple of hours by using the tricycle carrier instead of the railroad, which serves the two places in a very roundabout way, and would do it at considerably lower cost. This practical proof of the utility of the carrier ought to do a great deal of good to trade in these machines.

MOTOCYCLE KILLED THE HORSE.

Notwithstanding the many hundreds of motorcycles running in Paris, it is very rare that one hears of a serious accident, but one that happened yesterday was of so extraordinary a character as to deserve special mention. A motocyclist was driving at top speed when he ran into one of the three horses of an omnibus. The shock was so great that the horse was killed and in falling brought down the two others. The driver of the 'bus was thrown off his seat, and the motocyclist was discovered some distance away suffering from a terrific shock to the system, but apparently without broken bones. It is not often that such accidents are heard of in Paris, and perhaps this is surprising, in view of the great speeds at which some of them ride in and out of the traffic. The fools do not always have sufficient wisdom knocked into them to repent of their folly.

BRITISH DISCONTENT

Wet and Mud of Winter Curtails the Motocycle and Causes Reflection.

London, Dec. 19.—Motocycles are seldom on the roads nowadays. The heavy stoning of the roads and the wet and mud of winter militate against their use. It means a cleaning of machines after even a comparatively short run, and on account of the mud getting into the working parts troubles are of frequent occurrence. Moreover, the tendency to electrical troubles is greatly increased by the wet, and short circuiting is very frequent. It is quite clear, however, that improvements can be effected in these particulars, and indeed such advances must be made speedily, because motors are wanted for delivery purposes. The tradesman has to deliver, if anything, more goods in winter than in summer, and unless some means of rendering the motor tricycle (which, with a trailer, is now sometimes employed for this purpose) more reliable in bad weather, it will prevent such machines becoming popular for this class of work. Quads are even more out of it, because the heavy roads render them slow and sometimes necessitate constant pedalling, even when the machines are practically unloaded.

TIRE MAINTAINANCE A BIG FACTOR.

Another cause of trouble during the winter is to be found in the fact that the cost of tire maintenance is very much higher when the roads are wet and when flints are encountered for miles at a time. The tire question is always a very important one, and is undoubtedly the most expensive item which the motorist has to deal with. I recently heard of a case where a rider bought a new motor quad, for which he paid a high price. The machine was used fairly well, perhaps its daily run being fifty miles, but in rather less than a month the tires showed signs of collapse. Indeed, new ones were needed on two wheels, and here was a very large outlay incurred in a very short period of actual use. The result is that the machine has been put away for the winter, which, as the owner remarks, is not quite the idea of having a motor. Naturally, as motors of all kinds become more common, so will the condition of the roads, especially in winter, be improved, since more than half the damage to surface is caused by the hoofs of horses. But until this happy time arrives motorcycles in winter will prove rather expensive.

TO OVERCOME SHORT CIRCUITING.

The short-circuiting can easily be overcome with a little attention to the arrangement and the proper insulation of the wires, and a great deal can also be done to enclose the motor and working parts so that constant cleaning will not be necessary. These are details for the consideration of the motor manufacturer—but the roads he cannot help.

BUNDY'S WONDER

Has a Development in Acetylene Generation That Suggests Marvelous Probabilities.

The tire makers must evidently not rest with the present state of affairs. Either they must bring out some form of tire which will resist bad roads and flints for a fairly long time, or they must greatly reduce the present cost of motor tires, which is now really excessive. For ordinary work the tires might well be thicker, especially in the fabric, and perhaps one of the much-advertised substitutes for rubber might be employed for the covers of tires of motors designed and used for commercial purposes, so that the cost of running can be brought down to at least the same level as that involved by a pony and cart. At present, in winter the cost of delivery by motorcycle is very much higher.

GETTING AWAY FROM GALOLENE.

The employment of heavy oils for motors of the "De Dion" pattern is now an accomplished fact, but up to the present the precise nature of the mechanism used is not generally known. From what I can gather from a conversation I had with one of the gentlemen who is financing the experimental part of the business, the latest results are truly wonderful. It is found that as much as 25 per cent increased power is attained from the same motor by the use of heavy oil. The carburation is now, he tells me, absolutely perfect, which accounts for the increase in the power. So perfect is the combustion that there is no deposit in the cylinder, even after prolonged use. Very little alteration has to be made to the engine, the only difference lying in the fact that the oil is sprayed into the cylinder under considerable pressure, and at the moment that it enters the combustion chamber it is split into exceedingly fine particles by a peculiarly shaped valve. The carburation thus takes place within the motor and is immediately followed by the requisite compression. The burnt gases escape into the usual silencer and thence pass into a box heated to such an extent that all possible residues are destroyed, thus preventing the objectionable smell which has hitherto characterized motors of this class. The advantages gained, other than that of the increased power, are that the cost of running is reduced by some 60 per cent, while the bother of obtaining supplies of spirit is entirely removed. With the high railway rates now charged for the conveyance of petrol and kindred inflammable spirits this latter difficulty has been one which has rendered petrol depots few and far between. Furthermore, the heavy oil does not come under the same restrictions which an ignorant Board of Trade, backed by the silly prejudice of district and county council officials, have made law, merely to hamper the motor movement. At present it is often well nigh impossible for a man to obtain a license to sell motor spirit unless he goes to great expense in providing special storage in accordance with absurd regulations. Even then, and after he has fulfilled all the conditions, he does not always get a license. This difficulty in obtaining supplies has undoubtedly prevented the more rapid advance of the motorcycle in popular favor.

Elmira, N. Y., Dec. 31.—The Frank E. Bundy Lamp & Sundry Co. will shortly petition for a change of name to the Bundy Lamp & Light Co. Back of this simple announcement are events of momentous importance—momentous if but a tithe of expectations are realized and present hopes come true. For the Bundy company have an acetylene gas generator that can only be described as "revolutionary." This much maligned word, the pet morsel that inventors most love to roll under their tongues, seems truly to have a justification here, for the Bundy generator is demonstrated to be a marvel indeed. Gas when you want it, none when you don't want it, shut off and on with the ease of ordinary gas, the ordinary deposit of carbide freed from its ordinarily noxious odor, all danger of explosion or harm from leakage positively eliminated, pipes impossible to fill with soot—it all seems too good to be true, and yet the Bundy people actually demonstrate these things until the observer is convinced of the seemingly impossible.

The wonder-working is due principally to a "compound," a liquid that is used instead of water.

Before the *Bicycling World* man's eyes a lump of carbide as big as a man's fist was dropped into a dinner-pail. Instead of the commotion that would follow its immersion in water a few bubbles appeared, and gradually the surface of the liquid was covered with a whitish froth. Somewhat to his apprehension, it must be confessed, a match was applied, the only result being a moderate flame, which when stirred violently with a stick merely blazed the higher, not a sign of an explosion occurring. The flame was then blown out, the bare hand thrust into the pail and the remaining carbide extracted. What would follow were this attempted with water can be imagined by any one at all familiar with acetylene gas.

A peculiarity about the carbide taken out was pointed out and found to exist, that instead of the surface being soft and "caked" it was firm and hard. Downstairs in the Bundy office the burners were lit, the flame turned high and low, the light always remaining "white," and every question and objection answered and overcome.

The inventor, it is stated, has been at work for over three years, the Bundy people securing the generator about eleven months ago, and since that time assisting in the developing and perfecting of it.

Should its possibilities be realized, they are so vast as to take one's breath away. The lighting of trains, including locomotive headlights, automobiles, suburban homes—but it is too much to conceive. It is enough

to say that to every one interested in the development of acetylene gas as a lighting power the developments from Elmira will be awaited with the keenest interest.

Perpetuating the Terms.

"Is it not odd," remarked a tradesman of a studious turn of mind to the *Bicycling World* representative the other day, "how terms that have become obsolete still remain in general use?"

"For example," he continued, "there is 'candle power.' Candles are virtually a thing of the past, but the standard of lighting is still measured by them. It makes no difference whether the light is produced from electricity, gas or oil; in each case it is so many candle power that the light gives, and it will probably continue so until the end of the chapter.

"Then, then is 'horse power.' The horse is the standard by which we compare the power developed by a locomotive, a steamboat, and even such emphatically horseless vehicles as motorcycles.

"The latter are the very antipodes of horse drawn vehicles, yet their power is gauged by that of the horse and—worst of all—their terminology is such that the name of this faithful equine is certain to be perpetuated. Even after he has become extinct—if this threatened doom is destined to overtake him eventually—the engine that has stepped in and taken his place will be spoken of as having so many horse power.

"Viewed sentimentally, this is all as it should be. Were it different there would be danger of future generations forgetting that candles and perhaps horses ever existed. But with their names perpetuated as standards of measurement nothing of the kind can possibly happen."

Motorcycle Prices Reduced in England.

The British & Colonial Motor Car Co., Ltd., are now selling 2½ h. p. De Dion mototricycles at \$225 cash or, by deferred payments extending over a year, at the cost of \$5 per week. Even at this rate the amount is only \$260, which is a very great reduction on the prices usually asked. It is quite clear that the prices of motor tricycles will fall very much, and that about \$250 will be the selling figure in the very near future. This will tend to still further popularize these machines and so do great good to the trade. When prices were cut in cycles the bicycle was already popular, so that the drop was somewhat unnecessary. With the motorcycle the fall will tend to bring the machines into popularity. Thus it will serve a useful end.

Will do a Sundry Business.

The Thames Chain & Stamping Company, of Norwich, Conn., has filed in the State Secretary's office a notice of change of business to conduct a general bicycle sundry business.



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Fisk Tires

THE FISK CATALOG

for the new year is now ready. It will tell you the story of Fisk Tires as it has never been told before—will describe each member of our complete line, and tell its particular uses and virtues.

Read it and you will have a better understanding of the best tire made. Your autograph on a postal card will secure a copy.

If an agent, you might better write a letter and request terms and territory at the same time.

Yours for a happy and busy new year,

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Address us at P. O. Box 2349.

NEW YORK, JANUARY 3, 1901.

JANUARY 10th

JANUARY 17th

These are the Dates of

THE BICYCLING WORLD'S CYCLE SHOW NUMBERS.

They will deal with the subject thoroughly and well and without fear, favor or "gush." They'll be worth reading, worth keeping, worth advertising in. If you are not represented you will miss an opportunity.

Price no Longer Paramount.

Among others the year 1900 was remarkable for one thing: it freed the cycle trade from the tyranny of price.

Price will, of course, continue to be a factor, but it will not be the dominating one. The dealer has learned his lesson and he will talk quality more than ever before.

As the Bicycling World remarked last week, it is the roadster and not the racer that is now the model which sets the fashion, as it were, and this well represents the change that has come over the trade.

We have entered the era in which the practical mount, the mount which contributes most to comfort, is gaining the ascendancy.

The cushion frame, the chainless gear, the coaster-brake, the spring saddle, the long crank are due for more attention and popularity than ever before, while "features" of the chain geared bicycle will also be talked of more and cut a greater figure than for many years past. Price of itself will no longer be all important and the chief deciding factor.

Dealers have realized that there are other things to talk about that bring much better returns; they have come to understand that it is no longer a question of quantities in the cycle trade.

In short, it seems that with the new century is ushered in an era of cycling comfort and common sense.

The new year promises other things, but none that make for greater and more lasting betterment.

Dealer has his Turn.

It is almost time for the dealer to have his inning again.

He has been the under dog long enough—too long, he thinks—and is looking forward anxiously to the time when he will once more be courted and coaxed and deferred to by the maker.

In short, the time is approaching when he will be the most important spoke in the cycling wheel. The season's output is to be disposed of, and upon the dealer is placed the burden of disposing of it. Upon his ability to do so in good shape depends the success or failure of the year's business.

The lines are not drawn as sharply as they were a few years ago, when makers and dealers could almost be said to form two camps, frequently hostile and always with

many points of difference to settle and ugly blows to deal and take.

The common peril has brought about a change in the situation. Offence is not so easily taken or cause for it so lightly given. Combativeness has given place to a desire to ignore differences of opinion that would formerly have been seized as fitting occasion for reprisal.

It is not contended, of course, that there is no friction between wholesaler and retailer, or that differences of opinion do not arise. The millennium has not arrived, and until it does it is idle to look for such an ideal state.

But it is better understood than ever that a community of interests does exist between the two branches of the trade, and that self-preservation demands as harmonious a working as is possible in this finite world.

No maker would now permit a causeless and unnecessary dispute to arise to jeopardize the business relations existing between himself and a valued customer.

Nor, on the other hand, would any dealer run the risk of losing a valuable connection unless for reasons so imperative that no other course than the one he takes is open to him.

Both realize that changes are not to be lightly made. They entail explanations that are not easy to make, and it is much easier to avoid these and run along in the usual way than to frame answers to the questions that are sure to be asked.

Therefore it is pretty sure that the dealer who has been able to render a good account of himself in the past, or who can hold out reasonable assurances of success as a distributor in the future, will receive good treatment at the hands of his principals from now on.

What use he makes of this it is for him to say.

Eyes on the Carrier Tricycle!

Our Paris letter of this week points to an opening which those interested in the design and manufacture of motorcycles should not permit to escape them. The motor tricycle parcel carrier represents a feature of the "infant industry" that must not be overlooked. We have remarked the fact on previous occasions, but repetition will do no hurt.

That there is profit in the carrier tricycle, and that the demand is capable of large proportions, is self evident.

The number of small tradesmen to whom

such a vehicle will appeal is simply enormous. There are thousands of them in each of our larger cities, and scores of them in the suburban and country districts. There are few shopkeepers anywhere who could not use such carriers to advantage.

Many of them cannot afford the keep of a horse and wagon, and yet realize the value of quick and economical delivery of goods, and to these the motor tricycle carrier must appeal with tremendous force; to many who are able to employ horses and wagons, the economical side of such a carrier must be equally apparent and must as strongly appeal, the fact that such carriers are quickly convertible into pleasure tricycles or quads being an additional factor that must advance their sale.

The slow, lumbering, man-killing pedal-propelled carrier tricycles had no inconsiderable sale, and paid handsome profits to their makers. Although the fact was not readily recognized, these carriers were not only impractical, but inhuman. Their sale, however, serves to forecast the demand that must arise for a self-propelled carrier of the same type that is quick, humane, practical and convertible to other uses.

Our Paris correspondent relates that several makers in that city devote themselves wholly to the production of this form of motorcycle. With the much greater shop-keeping population of this country, the vista that opens suggests a wealth of profit awaiting some one.

Going Against Precedent.

At first blush it would seem as if the present would be the very time when dealers would be least anxious to augment their stocks of second-hand machines.

Ordinarily this would be the case. But inquiry among dealers shows that a few of them are taking just the opposite view of the matter. Not only are they adding to their collection of "crocks," but they are paying cash for them.

They reason it out in this way: At no time in the history of the trade has it been possible to buy second-hands for as little money as now. Desirable machines, in good order, can be secured for the proverbial song, consequently if they are worth anything at all they are certain to appreciate when the selling season opens.

"There are about a dozen machines that I have my eye on," remarked one dealer, "and I mean to have them all on my floor ready to sell by next March. They can be bought at

prices ranging from 50 cents to \$5, and there are some of them that can be sold for 100 to 200 per cent advance. I shall have but little capital locked up in them, and I do not see how I could make a better investment."

There is more in this view than is generally supposed.

It has been the injudicious and indiscriminating buying of second-hands that has wrought the mischief in the past, not such as is contemplated by the dealer referred to.

Jobbers and the Steel Rim.

While steel rims are still fitted to not a few American bicycles designed for foreign use, the sight of a wheel so fitted for use at home is so rare as to excite remark.

That there has existed even a modest demand for steel rims for domestic use has not been generally supposed; the fact that such a demand does exist and may be enlarged by a little cultivation was brought home to us only this week.

Two jobbers, one of them from the Far West, both agreed that this enlargement of trade is easily possible. One of them, led to try the experiment by reports of troubles with wood rims, ordered a stock of fifty pairs of the steel article. All were sold within ten days. The experiment was tried late in the year, and the result was so satisfactory that the jobber in question means to make a more serious effort in the same line next season.

The fact may "suggest things" to other jobbers; indeed, with the increasing experiment and use of motorcycles, on which steel rims are in general use, the average jobber may well give a thought to the steel felly.

Where the Great Demand Will Arise.

The winter which is nearing its turning point has been one given over largely to experimentation and reflection.

One portion of the trade has been devoting its energies to producing practical motors and motorcycles, the other to gauging the probable outcome of their labors and the demand which will materialize when the season really opens.

The motors may safely be left to take care of themselves. All that can be done to perfect them is being done. The present types are being improved and new ones evolved.

The burning question with the maker and seller of cycles is, What form of machine will be most practical and most salable?

Bicycle, tricycle, quadricycle, light carriage—all have their admirers and advocates. Dif-

ferent considerations will actuate buyers in their choice, and they will be glad or sorry afterward as their selection turns out to have been wise or unwise.

All these types have their advantages and they will all find buyers. But before investing large sums of money the latter will want to know what they are getting in return. Wellnigh perfect vehicles of standard pattern at moderate prices would give universal satisfaction; but what maker can offer these?

Without drawing invidious comparisons, it may be said that the bicycle is the only vehicle than can be claimed to fill the bill and certain to meet with ready approbation at the hands of any very great number of purchasers.

Other types of motorcycles have their advantages—superiorities, even—but none of them can hope to at once appeal to the great mass of riders.

Considerations of size, weight and price are certain to militate against their achieving a wide popularity in the immediate future. Buyers they will certainly find, and, almost as certainly, satisfaction will follow. But their sphere is limited, and its extension, although steady, will be slow.

The motor bicycle, however, has a field almost as wide as the world. It will appeal to every one who has ridden a bicycle, and to tens of thousands who were too feeble or too indolent to become active cyclists. The motor will rob hills and head winds of their terrors, and rival trolley cars as a popular method of locomotion during the heated spells.

The retail trade and the public are ready for the motor bicycle. A demand already exists, and it is certain to be fanned to tremendous proportions by the appearance of a few hundred proselyting machines.

The makers are not idle, either. Each week sees the number of experimenters added to, and by the time the selling season arrives there will be a very respectable showing of machines.

As a result of the exceptionally mild winter we have had, riding is being indulged in to an unusual extent in many sections. Machines that were put away for the winter have been brought forth, and their owners are cycling as if it were October instead of January. Repairmen are profiting to quite an extent by this continued use of machines, and are fervently wishing that the open weather will hold on for a while longer.

SYRACUSE SIFTINGS

What the Trade There is Doing and Why all the Talk is Favorable.

Syracuse, N. Y., Jan. 1.—A tour of the trade of this city developed a state of activity that is more than encouraging. While Syracuse is far from being the great bicycle manufacturing centre it was a few years ago, there is still left a number of first-class concerns, and with the entry of the Bretz Cycle Mfg. Co. a distinct revival seems to have taken place.

This latest concern, by the way, has jumped at one bound into the front rank, and cannot but prove one of the largest and soundest concerns in the country. To those conversant with the formation of this company this is not a matter of surprise, the chief wonder being the remarkable celerity displayed in getting started, the perfect working out of carefully laid plans and the entire absence of any fuss and feathers whatever. A tour of the factory would lead one not acquainted with the circumstances to suppose the Bretz Cycle Mfg. Co. had been in business for years.

The machine room is fairly packed with heavy automatic machinery, all running at highest speed and turning out large quantities of cups, cones, etc.; the frame room, the buffing, polishing and assembling rooms are equally busy, while the stock room, with its scores of bulging shelves and bins, displays a wealth of material to gladden the eye.

But it is in the enamelling and finishing rooms that the lover of good bicycles finds his culminating delight. He has seen in the other departments the quality of materials and workmanship, while here he sees the product completed in a manner to evoke the warmest admiration and praise. It is only simple truth to say that handsomer and more superbly finished bicycles have never been produced.

They are twentieth century bicycles in every sense of the term. In the Regal model, with its beautiful covering of yellow and green, the frame lines stand out in their full beauty and display the perfection of the designer's art. The nickelling and enamelling are flawless, while the transfer is a work of art. If this model does not win the hearts of many dealers it will certainly not be the fault of its appearance. The Wolff-American model is equally good, and while retaining the old familiar Wolff features, including the famous translucent finish, it incorporates many refinements that will appeal to Wolff agents.

Of the Stearns Bicycle Agency, which markets the products of the Bretz Cycle Mfg. Co., it can be said that it is on a plane with the goods themselves. At its head is Herbert E. Maslin, than whom no man in the trade is better known or better respected

for his business qualifications. As manager of E. C. Stearns & Co. he made a record that speaks for itself, and already in his latest capacity he has perfected a selling organization the results of which are beginning to be apparent.

Of the other Syracuse factories the Olive is making itself felt in a surprising manner; in fact, it bids fair to be the surprise of the year. Early in the season there was some doubt expressed as to its future, but such doubt, if any really existed, has been dispelled in no uncertain manner. A policy was mapped out that was in some respects a radical departure from that hitherto pursued, for, while the company were formerly satisfied to make a comparatively small number of highest-grade wheels, it was decided this year, while maintaining the quality, to go out after business on a larger scale and on the basis of a largely increased output.

Once this was decided upon, Don B. Smith, who succeeded C. A. Benjamin in the management, quietly packed his trunks and started westward. The result was the picking up of some of the choicest plums of the Western trade, enough, in fact, to keep the plant running at a greatly increased capacity for the major part of the season. Mr. Smith is now at the factory superintending the getting out of the goods, several carloads of which have already been shipped. In the West the Olive agents are more than taking kindly to the new models, and this section of the country is far from being neglected.

Frazer & Jones, makers of the "little wheels," the Elfin juveniles, go steadily on their way, in season and out, holding the bulk of their old trade and gradually adding new and desirable customers. Their policy is a simple one. They make good goods, set a fair price on them and get that price or nothing. And they generally get it, for their output has increased steadily, and so they proceed on the even tenor of their way, running the bicycle business in conjunction with their other large business with apparently little effort or straining after results. But, as has been said, they get them, and that's the main thing.

The Brennan Mfg. Co. (formerly the Brennan Handle-Bar Co.) is, by the way, a bustling little concern of large possibilities. They are getting in increased capital, and in addition to their line of handle-bars will manufacture a gasoline motor of their own design. This motor, the first crude model of which was shown and operated by Mr. Brennan during my trip through the factory today, appears to be a most practical one, starting easily and running with very little jar or loss of explosions. It can be hung crosswise in a wagon, and much stress is laid on the fact that any part of it can be "got at" without any trouble.

Last, but far from being least among the important factories, come I. A. Weston &

Co. While their reputation is national, or international, it might be said, locally among the other factories their name is a household word, for nearly all to a greater or less extent depend on them for parts or supplies. Hubs, of course, are the chief product, I. A. Weston & Co.'s "knock-out" axle and hub being used by some of the largest and best concerns in the country. The company state that their orders show every indication of a large business the coming year, and as they are a conservative and eminently "safe" concern this statement, coming from them, shows, as at first stated, that the general outlook is more than encouraging.

An echo of the old Frontenac bicycle is heard in that W. D. Andrews, the well known dealer, is having the Brennan Mfg. Co. put together five hundred machines which will bear the Frontenac name-plate and will be sold locally, as the wheel had some standing in its native city.

Otis is Out.

On petition of several creditors Judge Kohlsaat, in the United States District Court at Chicago, last week appointed the Chicago Title and Trust Company receiver of the assets of the Otis Bicycle Company, of 114 Dearborn street. This action followed the filing of a petition to have the concern declared bankrupt. The petitioning creditors were Morgan & Wright, Standard Seamless Tube Company, Toledo Tube Company and the Baldwin Cycle Chain Company. Their claims amount to \$867, and they allege that the Otis Bicycle Company has admitted its inability to pay all debts.

How "Keeping at it" Helps.

He is the manager of the metropolitan branch of a manufacturer of no small renown in the trade. A copy of the *Bicycling World* lay before him, and he was talking of business in a semi-personal strain. Finally, he pointed to the Iver Johnson ad. on the front cover and remarked in an envious and rather sorrowful tone:

"Those people have the right idea. It is keeping at it all the year 'round that tells. You have no idea how much it helps. I wish I could get our people to realize it."

Germans Liken Motocycles to Locomotives.

The German Customs authorities have decided that bicycles, velocipedes, etc., worked by motors shall be charged import duty as "locomotives," under No. 15 b 1 of the tariff, at the rate of 97½ cents per hundredweight. Ordinary bicycles are dutiable, under No. 6 e 3 b of the tariff, at the rate of \$2.92 per hundredweight. Motor vehicles are subject to the same duty as motor bicycles, etc.

To Acquire a Motorcycle Education.

"Motocycles and How to Manage Them." The name explains the nature of the book. Price 75 cents. For sale by The Goodman Company. * * *

ROCHESTER ORIGINATIONS

Unusual Number of New Things Being made Ready for Next Season.

Rochester, N. Y., Dec. 31.—It has been known for some time that the Rochester Cycle Mfg. Co. were producing a steam carriage, but with the company's usual policy adhered to of saying nothing until they were ready for business but little definite information was known concerning the scope of their plans. Now, however, the first vehicle is completed and is on exhibition at the company's warerooms.

Those who have been predicting that when the bicycle makers tackled the automobile problem in earnest they would "show a trick or two" will be certain to point to the Rochester company's vehicle as an example, for the carriage is certainly a beauty, and contains a number of original devices and improvements, while a big advance has been made in general efficiency and power. Larger engines, larger water carrying capacity, compact construction and ease of manipulation have all been provided for, due regard for proportion and appearances having been kept sight of, with the result that the carriage looks what it is intended to be, not a toy, but a vehicle built for business and capable of fulfilling all ordinary requirements. In a chat with Mr. Benjamin one cannot fail to be impressed with the seriousness and thoroughness with which the company are embarking in the new industry. They are far from "making a jump" for it; on the contrary, proceeding carefully and cautiously, recognizing at the start that they must meet future competition by preparing for it now; and with this idea in view extensive plans are now nearly matured and will probably be announced in a very short time. It may be said that if the company go into the automobile business at all they will go into it "right," that they will be manufacturers and not assemblers, and that in addition to manufacturing complete vehicles they will make a bid to supply the trade on engines, accessories and parts.

If there is any busier factory in the country than that of the Riggs-Spencer Co. the Bicycling World man has yet to find it. Running a full force twenty-three hours out of twenty-four tells the story, but does not convey any idea of the quality of work being done. That must be seen to be appreciated. To the lover of fine mechanical work a trip through the factory is a treat and a revelation. The chainless fittings for both bevel and Sager gears are simply marvels of accuracy. Gauged to less than one ten-thousandth of an inch, they show even with the finest calipers absolutely no variation; in fact, so completely and so often is every process tested and gauged that there seems no possibility of anything being "out," even to the smallest fraction.

With the "Cinch," the new coaster-brake the Riggs-Spencer people are getting out, everything is being laid out on the same scale. The first samples have been so well received that the brake is already being listed in a large number of catalogues, one of the biggest supply houses in the West even contracting to have their travelling force carry samples of the "Cinch" coaster brake only, though they will catalogue and sell other makes. It is expected that deliveries can be made in about six weeks.

The Acme Coaster-Brake Co. is another Rochester concern whose future seems already assured. The Acme has caught on, sure enough, and already a number of the largest makers have not only adopted it, but have announced their intentions of pushing it enthusiastically. This brake was described in detail by the Bicycling World some time ago, and is familiar to most of the trade. It is certain to be more so before the season ends.

The Durand Mfg. Co., in South avenue, makers of marine motors, probably inspired with the success of the other local coaster-brake concerns, are preparing to get out a coaster-brake said to be the invention of Mr. Bullis, of Bullis ball gear fame. It is yet too early to give details, as the first sample will not be out for a couple of weeks. The company state, however, that the brake will meet all expectations.

The Apex Wheel Co., of which James Shone is the head, have got out a machine that promises to be a gold mine. It is the invention of Mr. Shone, and is a miniature rifle range for use in saloons, barber-shops or wherever a crowd of men congregates. The machine is on the order of the nickel-in-the-slot idea. It is a boxlike affair about four feet long, set at about the height of an average man's shoulder. The range is inside, a smaller air rifle about as long as an elongated revolver being set outside and working on a swivel. A nickel dropped in the slot allows two shots to fall into a cup. When the bull's eye is hit a check falls out good for a drink, a shave, etc. Several machines put out have showed large earning capacity, and if the expectations of the makers are realized the bicycle business will eventually be abandoned. It is said that Roger Enright, with his usual facility of getting next to a good thing, has arranged for some territory. The spectacle of the Chesterfieldian Roger demonstrating the possibilities of the machines along the Bowery is too much for the average man's imagination. Ryman, the drop-forge man, is also interested.



SARTUS
BALL RETAINER
(The Original)
BEST ANTI-FRICTION.

618 BROADWAY, NEW YORK.

LEROY'S MAGNITUDE

How that Buffalo Factory Impressed a Reporter who was Shown Through.

Buffalo, N. Y., Jan. 1.—The product of the Leroy bicycle factory of this city is well known to all large jobbers and dealers, for the Leroy prices rarely fail to excite comment when they are quoted.

"Don't see how they can do it for the money" is a remark frequently heard, and in truth it does seem wellnigh impossible that bicycles of the quality the Leroy output has proved to be, even with the most approved methods of manufacture, can be produced and sold at the prices at which they are offered.

An inspection and tour of the huge factory at Kensington not only makes all this plain, however, but proves an eye-opener even to the man accustomed to the interior of bicycle factories generally.

Many makers claim "quantity production." The Leroy factory has it. It does not seem too much to say that the facilities of the plant are as large if not larger than any independent factory in the country. Not only this, but at the present time these facilities are being severely taxed, some departments of the mammoth plant running all night as well as day. All over the factory stock is being piled up and made ready in quantities to make even a seasoned veteran blink and wonder where on earth it can possibly be absorbed.

But this seems to be among the least of the worries of Sales Manager Boyer, who, in response to the somewhat dubious query of the Bicycling World man, stated that a goodly number of thousands of orders for immediate delivery were on the books, with many more certain to follow. The equipment of the plant is tremendous. Within its walls about everything, with the exception of tires, rims, spokes and saddles, is made. This includes all the parts usually bought, complete frame sets, head fittings, etc., hangers, bottom brackets, fork crowns and even pedals. Each article is produced in such quantities, and the rows of huge punch presses, lathes and milling machinery pile the stuff up so rapidly, that the whole establishment, large as it is, seems fairly congested.

With all the rush the quality of the work is far from being slighted. Hubs are plated over copper, as is the familiar nickelled fork side of the Leroy bicycles; a thorough system of inspection prevails everywhere. In short, the factory arrangements are admirable in every respect.

For Cycle Show Visitors.

The Murray Hill Hotel is making a bid for the patronage of Cycle Show visitors, and has many claims to their consideration. It is a clean, quiet, high grade place, but one whose tariff is well within reason. It is within two minutes' walk of the Grand Central Station, and but four minutes removed from Madison Square Garden. To those who do not relish the hurly-burly of Broadway, and who desire convenience and comfort at reasonable rates, the Murray Hill should appeal strongly.

ADVICE TO AGENTS.

It Comes From Michigan and is of the Sort Worth Heeding.

Always clever at word compounding, the National Cycle Mfg. Co., of Bay City, Mich., are fairly outdoing themselves in the series of folders which they are now issuing. Aside from the heralding of National bicycles, the printed matter bristles with good advice and sound argument that can scarcely fail to profit any dealer into whose hands it may fall.

The third of the series, entitled "The Business as It Is," is a fair illustration of the whole.

"The statement is often heard that the bicycle as a fad is going out, as all fads do," say the National people in this particular article, "and we do not know that it is not in a measure true. Neither do we know that it is not a good thing that it is so. During what are called the palmy days of cycling the Patent Office was flooded with a thousand and one conceptions of attachments, many of which died a-borning, while others found some demand from the rider who wanted everything, from a luggage carrier to an umbrella. The dealer was forced to carry stock which proved itself dead at the end of the season, and absorbed a goodly portion of his profits. With the dying out of the fad went the demand for gimcracks, and came the demand for the business vehicle. 'Century scorches' are no longer popular, but we venture to say that the bicycle is used more to-day for business purposes than ever before.

"The mill or factory owner has his bicycle to ride to and from his office. The office man uses his wheel in like manner. The workman in the shop is able to have his vehicle, the reduction in the price of good wheels placing them within reach of his pocketbook. It is the demand by the mechanic, the clerk or the laborer for any article which supports that industry. In their trade is the volume of business, and progressive merchants bid for it. They are discriminating buyers, close buyers if you please, but they do not want a poor thing because it is cheap. They do want the best that their money will buy.

"Bicycles have been and are sold on their reputation, on their merits or on their price. The average buyer knows something about the reputation of some bicycles; he knows little or nothing about the inherent merits of any; he knows all about a price, because that's the end of the deal in which he is most interested when he buys anything. The average salesman offers a bicycle to his customer either on its reputation or on its price. The rider who paid any price for a bicycle of pre-eminent reputation is not the average buyer of to-day. On the other hand, the buyer who wants the most for his money wants the best bicycle he is able to buy.

He is willing to pay a fair price for a bicycle which has been shown up to be better than another at a lower price, but the fact has got to be shown to be true. It is right here where the dealer who has a line of bicycles which have the points about them to win the buyer, if they are properly shown up, has his opportunity. Merit will win against price, and while it takes a little more time to make the sale the increased gain to the dealer comes afterward, when his satisfied customer brings in another, and his future time is spent making sales instead of making repairs.

"When we opened our retail store here we had bicycles with a reputation to compete with on one hand, bicycles at a price on the other, and besides that the fact that 'a prophet is not without honor save in his own country.' We went right after the trade on merit. We showed to every prospective buyer the good points about National bicycles. We let no man go out of our store without trying to convince him that he would save money in the end by buying a National. Our prices were never cut, neither was the quality of the bicycle. The policy won out. Nationals sold, stayed sold. Riders were satisfied and our trade grew steadily.

"What we wish to impress upon you is the practical possibility of doing a profitable business with National bicycles. We carry on a retail store in this city which pays the factory the same prices that we ask you to pay. The business is handled conservatively, the instalment contracts are rigidly enforced, our prices do not change during the season, and every year the department shows a satisfactory profit. The business is not obtained on price, for our list price is our cash retail price, but every new customer is shown why the National is a good wheel to buy and why he gets 100 cents' worth for every dollar we ask him."

How the New Victor is Conquering.

It is evident that the name Victor as applied to bicycles has lost little if any of its magnetism. A personal note from Manager Miles, of the J. Stevens Arms & Tool Co., who has been on the road since Christmas, makes this plain.

"Am having a most remarkable trip," he writes. "I closed contracts in Albany, Schenectady, Utica, Syracuse, Watertown, Oswego and Rochester in three days. I have not scored a failure in any of the places visited, which speaks well for the wheel and the people back of it. Agents are enthusiastic over the new Victor, and it certainly looks as if we will have our hands full keeping pace with orders."

MANAGER'S POSITION wanted with first-class bicycle or automobile company. A 1 references and seven years' experience. Address Box 5, Bridgeport, Conn.

REIGN OF THE RACER

One Tradesman Still Manages to Get Value for his Services and How.

"Say, you newspaper men are always talking about the decline of the racing man's influence, aren't you?" was the greeting given the *Bicycling World* man by a dealer in a large town recently.

Receiving the assurance that he was correct, he went on:

"Well, it hasn't declined altogether, I want you to know. The racing man does not have the snap he used to, but he still plays the game for all it is worth in some places, and still comes out a winner. He receives more halfpence than kicks in this town, I'd have you know, and he has reason to be pretty well satisfied.

"Take the case of Blank"—mentioning a large dealer in the same town. "He still pins his faith to the racing man, and I must admit that he comes pretty near being a winner by it.

"He has had three racing men on his string this year to my certain knowledge; and while they have cost him a good many hundred dollars I am not prepared to say that they have not been a good investment. They have worked for themselves, of course, but they have also worked for Blank and sold quite a number of machines for him.

"One of them works over at the car works, and he regards that as his own particular preserve. Quite a number of bicycles have been sold there this year, and almost without exception they have been makes handled by Blank. His racing man knew that he had to make some return for the favors he was receiving, and he worked to some effect among the men at the car works; in fact, very few of them got away from him.

"As far as my own business is concerned, I don't think that such a policy would pay. I even doubt whether Blank has much more than come out even on the deal, and there were certain circumstances connected with it that helped him more than it would have done me.

"There was one queer game worked by Blank that I don't think was ever tried before," the dealer went on. "It was this: At the beginning of the season he had his principal racing man mounted on a certain machine. A little later he found that another make was not going off as well as he would have liked, and he hit on the expedient of having the racing man 'boost' it along, too. But he was not willing to neglect the first machine, either; so he made a division of the work.

"One day one machine would be ridden, while the next the second one would be taken up. He even carried this so far that on the day of our race meet—we still have one of these occasionally—the racing man took both machines to the track and rode first one and then the other. Fortunately for Blank he won on both, but it would be interesting to know what Blank would have said had his man scored on only one.

"Of course, this division caused some queer mix ups. The men over at the car works hardly knew which machine to favor, but as a rule they stuck to the one they got started on. But it seems to me that there was a waste of effort, with no corresponding good resulting."

It affords us pleasure to announce that the

Wolff-American, Regal and Holland

Bicycles will be on exhibition

AT THE SHOW.

A full line will be displayed at our exhibit, Spaces Nos. 82,
84 and 86, Madison Square Garden,

January 12th to 19th, 1901.

Dealers who will be unable to attend the "Show" should
address all communications relative to
agencies, etc., to

STEARNS BICYCLE AGENCY,

Distributors of Bicycles,

SYRACUSE, . . . N. Y.

WHAT IS GEAR

Here's a Profound Argument to Disprove the Cycling Idea of it.

Cycling, like every other sport, has a nomenclature of its own, and what is true of the pastime as a whole is also very true of the mechanical side of it.

Unfortunately, in mechanical matters the nomenclature is by no means yet fixed, says a contributor to *Wheeling*, and we require a standardization of names as well as of nuts, screws and other components. For the various tubes, lugs, wheels and axles each person adopts the names which seem right in his own eyes. Many of these words are incorrectly used; for example, it is usual to speak of "chain stays," where "chain struts" is the correct term. A "stay" is a piece used to stiffen a "strut," which latter is a piece designed to resist compression. The bridge used to stiffen the chain struts is therefore a "stay."

This looseness in terminology would not matter much, perhaps, under general circumstances.

"What's in a name?" you ask. Names, however, according to Locke, are the outward and visible signs of ideas of sensation and reflection. If therefore names lead us to incorrect ideas of reflection, then, indeed, the correctness of names, the exactness of terminology, becomes of vast importance.

I doubt if in the whole range of cycling nomenclature there is any expression which gives rise to greater confusion of ideas than the word "gear." Our ideas of sensation are probably derived from examining the cogs on the chain wheels. From these, by a process of reflection, we arrive at our ideas of the meaning of gear.

To find, however, the present meaning of the word it is absolutely necessary to review the history of the pastime.

Till a substitute was being found for the dangerous machine, yet lovingly yclept the "good old ordinary," the word "gear" had practically not appeared in cycling terminology. When, however, the safety was invented in various forms inventors naturally produced a machine which gave the same travel for each revolution of the pedals as the discarded ordinary. (This travel, by the way, is called by the French the "development," and is one of their methods of considering this question). The diameter of the ordinary was, say, 60 inches; the rider then desired a cycle which gave the same pedal pressure, and had in all respects as far as effort was concerned the same effect on him as his old 60 inch wheel. He therefore spoke of his new mount as being "geared up to 60 inch"; the ellipsis to be supplied being "geared in such a way as to require the same propulsive effort as an ordinary of 60 inch diameter." This expression "geared up to" was soon shortened to

"geared to." So far no confusion could arise. The next change, however, was vital. Instead of "geared to 60 inch," we very soon had the more condensed expression "a gear of 60 inch."

Herein arose the confusion. Gear never was, and in engineering practice never is, considered as a lineal measurement; nor should it be. When an engineer declares that a mechanism is geared up or geared down he means that the pressure is increased or diminished (or, which is the same thing, the speed diminished or increased) in a certain ratio. Thus, suppose an overshot water wheel is driven by a circumferential force of 10 cwt. of water, and revolves only once every 60 seconds. This speed is much too slow for the work required, so the engineer lowers the pressure to, say, $\frac{1}{4}$ cwt. by gearing with a cog wheel one-fortieth of the

speed of any two, or indeed of any number of cog wheels gearing into one another, is the same.

The above simple illustration, with which all are acquainted, will render the question of cycle gearing much more easily intelligible.

In the case of the rear-driven safety, the speed of the back wheel would be too great to be followed by the feet on pedals directly attached to its axis. As the pressure on the pedals in this case would be correspondingly small, we can gear up the pressure and at the same time decrease the speed. Now, then, we have, I hope, the elementary idea of gearing in a safety cycle. We increase the pressure and decrease the speed a certain number of times.

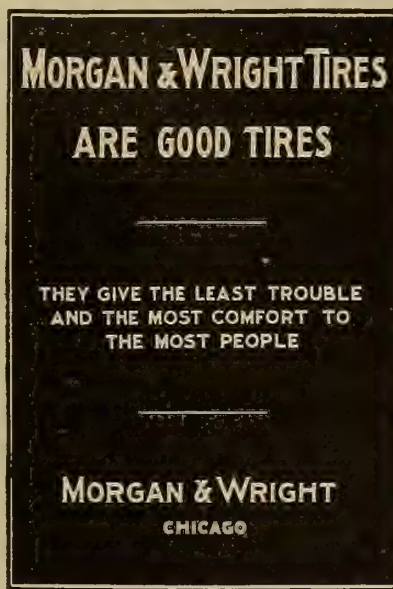
Let us suppose that the angular speed is decreased $2\frac{1}{4}$ times. Then for each revolution of the geared-up pedals the back wheel will make $2\frac{1}{4}$ revolutions, and the average pressure on the geared pedal will be $2\frac{1}{4}$ times that on the ungeared pedal. It will be seen at once that a sprocket wheel with 27 teeth and a hub ring with 12 teeth will give this result. The ratio of the sprocket teeth is then the gear ratio, and the nominal gear is obtained by multiplying the diameter of the back wheel by this ratio. Thus, with a 28 inch back wheel the nominal gear is 28 by $2\frac{1}{4}$ equals 63 inches. This gear ratio is called by the French the "multiplication." The nominal gear, as stated before, is the diameter of the corresponding ordinary.

In the above I shall doubtless be accused of developing a theory. As every engineer knows, however, my statement is only a re-statement of fact—the plain fact that gear is not a lineal measurement, but a mere numerical ratio.

In the mechanics of the cycle there is another relation which is more important than the gear ratio, to wit, the relation which the pressure on the geared pedal bears to the resistance of the cycle. In the ordinary this relation was simply the radius of the wheel divided by the length of crank; and so in the geared cycle the ratio is also half the nominal gear divided by the crank length.

This seems almost self-evident. It is simply the principle of the lever. The foot acts at the end of an arm equal to the crank length; the resistance of the cycle takes place at the periphery of the wheel, and therefore acts through an arm equal to the radius of the wheel. In both cases the axle is the fulcrum. Hence, foot pressure multiplied by crank length equals resistance of cycle multiplied by radius of wheel. (I am speaking of the ordinary, or the equivalent ordinary, which latter simplifies the question of the geared cycle.)

This ratio may very properly be considered the true gear. For, consider the water wheel once more. The force of the water acts at the circumference of the big wheel, and the resistance overcome acts at the circumference of the small wheel. Now, the



NEW YORK BRANCH: 214-216 WEST 47th ST.
BOSTON BRANCH: 80 BATTERYMARCH ST.
Near Fort Hill Square.

diameter of the water wheel, that is, he gears down the pressure in the ratio of 40 to 1, and by so doing increases the speed in the same ratio—the small cog wheel revolving once in $1\frac{1}{2}$ seconds. For this reason the gear ratio is also commonly called the speed ratio.

Now, a ratio is a mere number, or, as the mathematicians call it, a numeric. The ratio above, 40, is not 40 in., nor 40 ft., nor 40 seconds; it is merely the number 40. If we were to say, for the sake of brevity, that the gear is 40, no confusion of ideas would arise; we should simply mean that the pressure was lowered, and simultaneously the speed increased, 40 times. Note, however, what is meant here by speed; the speed here intended is the number of revolutions per unit of time, say, every second. This must be distinguished from the peripheral speed, i. e., the lineal distance per unit of time through which any point on the circumference of the cog wheel moves. A little consideration will show that the peripheral

pedal pressure takes the place of the water pressure, and the resistance in both cases acts at the periphery of the driven wheel. The true gear, therefore, is a relation of pressure to resistance, just as the gear ratio above. We shall also see that it is a speed ratio.

The nominal gear can always be found immediately from the true gear; thus—nominal gear equals 2 multiplied by crank length multiplied by true gear.

The true gear is also a speed ratio, but in this case a peripheral speed ratio. Thus, in the example already taken, the back wheel revolves $2\frac{1}{4}$ times for each revolution of the pedals. During this time it travels therefore $2\frac{1}{4}$ by 28 by 31-7th equals 198 inches. This is the development of the cycle. In the same time the foot travels 2 by 6 by 31-7th equals $37\frac{1}{2}$ inches approximately. The development therefore is $5\frac{1}{4}$ times the foot travel. This result is immediately obvious from the consideration of the equivalent ordinary.

The true gear is therefore the ratio of the lineal speed of the cycle to the lineal speed of the foot. From this we have the immediate corollary that the lineal foot-speed is entirely dependent on the true gear, and also, if the cycle speed and the true gear are constant, the foot-speed is the same, no matter what may be the length of crank or the nominal gear. This fact, which I have seen proved out by figures as a great discovery, is an obvious deduction from the fact that the true gear is also the lineal speed ratio.

The above investigation shows that the true gear is an essential co-efficient in the mechanics of the cycle. The simplest terms by which these mechanics can be determined are (1) crank length, (2) true gear.

For example, if the true gear be $5\frac{1}{4}$ and the cranks 6 inches, the nominal gear is 2 by 6 by $5\frac{1}{4}$, equals 63 inches.

Note that the true gear is a numeric only, and has no relation to units of length. It is a ratio pure and simple.

Consider, now, the importance of this true gear. A rider in choosing his nominal gear is guided by his strength, the nature of the country, etc. There is, however, another factor of the first importance in choosing the nominal gear, and that is the crank length. Without having fixed the crank length, the rider will not fix the gear. Accordingly the ratio of the two must be considered. By itself the nominal gear is an index to nothing. If a rider tells you his gear is 100, the information conveys no idea at all to your mind as to the work he is capable of doing. If, however, he informs you that his true gear is $5\frac{1}{4}$, though he may not tell you his crank length, still you know he is using a normal gear. The true gear may be low, normal or high. If it is under $4\frac{1}{2}$, it may be considered low; between $4\frac{1}{2}$ and 6, normal; above 6, high. With a $6\frac{1}{2}$ inch crank, nominal gears from 58½ in. to 78 in. will be normal; with a 9 in. crank, gears from 81 in. to 108. will be nor-

mal. If, however, you inform a friend that your gear is 100, he immediately declares it is frightfully high. If he understood the question the mere statement that the gear is 100 should convey nothing at all to his mind of the pressure at which you were working. If he appreciated the point your statement that the pedal pressure was 5 times the cycle resistance, in other words, that your true gear was 5, should immediately inform him at what gear your strength and the topography of your district permitted you to work.

In the controversy which has lately been waged on crank length there is nothing more painful than the confusion which arises from misunderstanding the meaning of the word "gear." As a matter of fact, if the true gear were adopted we should hear no more of long cranks and high gears; the controversy should properly be headed long cranks and normal gears.

Inasmuch, therefore, as the nominal gear is the fruitful source of confusion of thought, and since it represents nothing but the diameter of the equivalent ordinary, which is not an essential co-efficient in the mechanics of the cycle, let us have no more of it. It is high time riders had gained sufficient knowledge to know that it is a useless factor. Remember that, roughly, anatomy determines crank length, physiology determines true gear, and that from these two the mechanical specification of the machine is absolutely fixed.

I am well aware that what I have said will be described as theory. I assert, however, that the true gear is no more theory than the statement that three times three is nine. The true gear is a concrete number in every cycle—it is therefore a concrete fact. Of course, when I say that the physiology of the individual determines the true gear I mean so roughly, because if one enters into the refinements of the question there is so much doubtful that a certain amount of theory must enter. This does not, however, detract from the fact that the true gear ought to be, and can roughly be, equilibrated against the personal characteristics of the rider in like manner as the crank length; whereas the nominal gear can be set against nothing in his personal equation. The true gear, then, involves less theoretical consideration than the nominal and is therefore, as philosophy adopts, always the simplest relations, the gear to be adopted by all to whom the question of gear is properly intelligible.

Chicago and Cincinnati.

The Monon Route and C. H. & D. R'y run four trains daily from Chicago to Cincinnati. The day trains leave Dearborn Station, Chicago, at 8:30 A. M. and 11:45 A. M., and are equipped with elegant Parlor and Dining cars. The Night trains leave at 8:30 P. M. and 2:45 A. M. These trains are equipped with elegant sleepers and compartment cars, the sleepers on the latter train being ready for occupancy at 9:30 P. M. City Ticket Office, 232 S. Clark St., Chicago. ***

The Retail Record.

CHANGES.

San Francisco, Cal.—Best Bros., retired.
Wilmot, S. D.—L. S. Hauzen, discontinued.
Norman, Okla. T.—W. J. Brown, discontinued.
Bartlett, Tex.—G. A. Liudemann, discontinued.
Bozeman, Mont.—Rodgers & Crockett, discontinued.
Rockton, Ill.—N. R. Comstock is erecting an addition.
Ida Grove, Ia.—Martin Sauter succeeds Sauer Bros.
Fulton, S. D.—L. H. Holmes succeeds N. H. Swagood.
Pleasant Lake, Ind.—Frank H. Chadwick, discontinued.
Utica, N. Y.—Joseph F. Coupe succeeds Utica Cycle Co.
Eureka, Kan.—Redman & Tucker, James Redman retires.
Manistee, Mich.—Leon A. Walters succeeds Parvey & Coolters.
Elkhart, Ind.—Gardner & Sternberg succeed C. D. Carlton.
Tacoma, Wash.—J. J. Mulholland, removed to 908 Tacoma avenue.
Brookhaven, Miss.—C. H. Dahlstrom succeeds Dahlstrom Bros.
Lisetteon, S. D.—Carlberg Bros. & Norley succeed Jenkins & Hill.
Sioux Falls, S. D.—Hockman Hardware Co. succeeds C. H. Vincent.
Emmetsburg, Ia.—Steel Hardware & Supply Co. succeeds Joe J. Steel.
Huntington, Pa.—James E. Sponeybarger succeeds Sponeybarger & Coolidge.
Meriden, Conn.—A. D. Elster, 133 Hanover Street, will remove to the Penfield Building.
Boston, Mass.—The Barden Cycle Company, No. 1,449 Dorchester avenue, removed to larger quarters at No. 234 Adams street.
Ottawa, Ill.—Ottawa Cycle Company, legally dissolved.

EMBARRASSMENTS.

Marion, O.—George Drollinger, closed out on chattel mortgage held by George Blum.
Leominster, Mass.—Henry W. Hagen, No. 12 University street; liabilities, \$2,785; assets, \$40.
New York, N. Y.—Long Island Rubber and Cycle Co.; judgment granted the city of New York for \$135.
New Haven, Conn.—F. A. Norton & Co., 187 Campbell Street, attached by creditors and sheriff in charge. Liabilities estimated at \$3,500, and assets at \$1,000.

FIRES.

Norfolk, Va.—Cooper & Land; loss heavy.
Frederick, Md.—Shipley & Bropst; slight loss.
Circleville, Ohio.—J. Shell, East Main street.
Marcus Hook, Pa.—William McAllister; total loss.
North Yakima, Wash.—Thomas Staton, loss \$800, insurance \$600.

DEATHS.

Dunellen, N. J.—W. R. Larkin.
Attleboro, Mass.—J. R. Enbom.
Oneida, N. Y.—Charles W. Conley.
Chicopee, Mass.—D. D. Ladd, aged 47.

NEW STORES.

Binghamton, N. Y.—W. L. Montrose & Co., 172 Washington street.

REPAIRS AND SUNDRIES

Veteran Dealer who Finds Them the Mainstay of his Business.

"I care little who sells the bicycles if only I may do the repairing," might almost be exclaimed by some dealers who have given the repairing end of the business especial attention.

One of these is the veteran Brooklyn, N. Y., dealer, Alex. Schwalbach, who, while not desirous of curtailing his sales, yet finds the repairing end of his trade by far the most lucrative. The sale of sundries makes a good second, having undergone a wonderful improvement during the past season.

"Things have got down to hard pan," said Schwalbach to the *Bicycling World* man recently. "I have closed out all my evidences of former grandeur—big sales and store rooms, plate glass windows, riding schools, corps of attendants, etc. If I hadn't done so I would have 'gone broke' long before this. But I pulled out in time, and settled down into smaller and less expensive quarters more in keeping with the changed conditions.

"I haven't anything to complain of, however," he continued. "I still manage to dispose of a few machines—the total during the season just past was something over two hundred—and at a fair profit. As I do a good, straight business, taking no risks and making few if any trades, this is not so bad, all things considered.

"But it is my repair and sundry business which I bank on and make most of my profit out of. I have a good line of custom left—so good that I am well satisfied with it, especially as I know that others have not fared so well. It would surprise you, too, to see how much riding, steady riding, is being indulged in. It effectually disposes of the assertion that 'no one rides nowadays.' People do ride, and constantly, too; and I honestly believe that there will be even more of it next year. Not so much of it is pleasure riding, to be sure; but it is astonishing how much dependence people have come to place on bicycles when they want to get anywhere.

"Another proof that there is still plenty of riding being done is afforded by the amount of repairing I get. It forms the bulk of my business, as I have said, and on the present basis it is profitable, too.

"Methods have changed very much in the last few years. Repair prices are much lower than formerly, but improvements in shop practice have more than kept pace with the drop in schedules. We do practically everything now, and with improved tools, workmen and parts our facilities are enormously increased. One man now can do the work of three or four, having everything right at his hands, and many parts requiring no fitting whatever.

"Nowadays a man respokes a wheel in a tithe of the time it used to take him. The old spokes and nipples are never used, it being much cheaper to put in new ones than to take the time to strip the wheel for the sake of the old material. It is the same way with the rims; we never think of using a rim that is not true to start with. Even if it were only a little out it would cost more—in time—to true it than the rim is worth. So an imperfect rim is discarded without a moment's hesitation.

"It is the same way all down the line. Quick work is our motto, and it has to be right, or we could not hold our trade the way we do."

Little Show Space Remains Unsold.

There will be few, if any, vacancies in the Madison Square Garden Show. Nearly all of the floor space has been engaged, and but eight spaces in the gallery remained unsold on Wednesday last. The late comers are: Stearns Bicycle Agency, Stratton Motor Bicycle Co., Boisselot Automobile and Special Gasolene Motor Co., American Pneumatic Valve Co., Admiral Bicycle Lamp Co., James E. Garner, Coe Mfg. Co., the Le Roy Bicycles and the Fleming Mfg. Co.

Parker has Enough, too.

Harris Parker has resigned his position in the American Bicycle Co.'s sales department. He was appointed to one of the vacancies caused by the retirement of J. A. Carter. Mr. Parker is one of the ablest young men in the trade, and is well known in the East, having been for some years manager of the Crawford Mfg. Co.'s New England branch. The reasons for his resignation are uncommonly interesting.

For Cushion Frame Chainlesses.

With their bevel gear fittings, the Leland & Faulconer Manufacturing Company supply a compact and most ingenious connection or hinge for use on cushion frame models; the completeness of these fittings has reduced the construction of the chainless to a fine point of simplicity; they are furnished in such shape that the manufacturer has but to braze his frame tubes in position.

Laconia Declines Proposition.

Success has not crowned the negotiations conducted by the Citizens' Committee of Laconia, N. H., with the Hoffman Bicycle Co., of Cleveland, O., looking to the removal of the latter concern to Laconia. At a meeting of the committee held on Friday last the proposition of the Hoffman Co. was declined, but it is possible that a counter proposition may be made.

Bevins Gathering Them in.

From the best reports the Bevin Bros. Mfg. Co. are accounting for the lion's share of the bell business, and the reports do not come from the Bevin people, either. The fact is not wholly surprising, however. The Bevins were up and doing early, and with a widely assorted line of attractive bells and prices that could not well fail of effect.

PERSONS



The King of



SADDLES



PERSONS

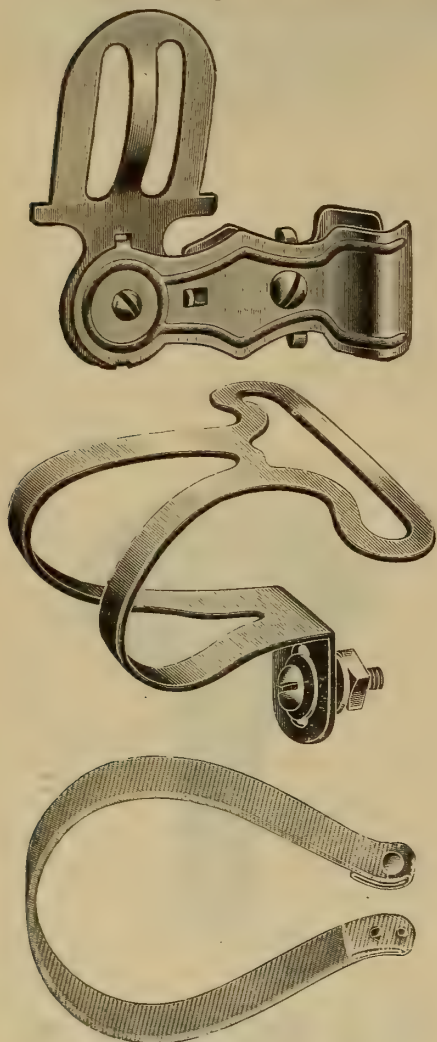
PERSONS

JUST A FEW

of the wares manufactured by

Bevin Bros. Mfg. Co.,

East Hampton, Conn.



There are others of the sort, too.

THEN
there are the
BEVIN BELLS.



This is merely one of them. If you are not acquainted with the Bevin's full line and the prices, it's time to drop a line to
East Hampton.

How the Levers Operate.

Additional light is shed by an English writer on the extreme simplicity of the system of levers used on the bicycle fitted with the Compact motor.

Speaking of a ride he took on one of these machines, he says that the control of the bicycle is effected by two levers on the handle-bar, exactly similar to the ordinary brake lever. The right-hand one operates the brake, and the left-hand one regulates the mixture, opens and shuts the throttle valve, and also enables the exhaust to be kept open for starting purposes.

I had no trouble whatever in working the machine at the first attempt. It was only necessary to get on board, pull the left-hand lever up to the fullest extent so as to open the exhaust, and then pedal off slowly. When the machine was under way I gradually dropped the lever, thus opening the throttle, and at the same time brought the magneto-electric ignition into operation, and the engine began to work. When I desired to go faster I let the lever drop further from the handle-bar, and when I wished to ease for a corner I pulled it slightly upward. Nothing could possibly be simpler, and any cyclist should be able to master its management in a few minutes. At the time of the trial the streets were in a very greasy condition, and I negotiated one or two corners at a somewhat faster pace than I had intended. Nevertheless, the machine showed no tendency to side-slip.

"Wheels recently ordered" arrive too late. The time to sell is in the spring; the time to order is now.—From the Leland & Faulconer Catalogue.

What Springs Will do.

It has been urged against spring frame machines that the springs lose their elasticity and break. Combating this theory, an investigator declares that a spring steel member of any construction will last longer than a wrought iron or ordinary mild steel member, so long as it is not stretched beyond its elastic limit. The elastic limit of a piece of spring steel is not to be compared with the elastic limit of ordinary soft steel or wrought iron. Take the balance or hair spring of a Geneva watch, which has to be deflected quite four times a second, and which yet lasts for perhaps one hundred years in constant use without appreciable diminution of elasticity, meaning no less than 12,614,450,000 deflections. Surely no spring frame member would be required to stand so many distortions in its average life! Vibration may crystallize rigid constructions and cause them to become brittle, but elastic constructions overcome this deleterious effect, and hence are doubly favorable in the construction of a cycle.

Given More Prominence.

In addition to retaining the old quarters in the basement, the bicycle and motor department of John Wanamaker's Philadelphia store has been given a very prominent position on the main floor. This is about midway of the Juniper street side, right in the path of the incoming crowd from the Pennsylvania Railroad station. Two or three steam carriages and several motorcycles are displayed, among the latter being an Orient motor bicycle. The latter attracts much attention, and many questions are asked concerning it.

Read what **Mr. J. G. Swindeman**, the prominent bicycle dealer of Toledo, Ohio, has to say about the

CUSHION FRAME

Toledo, Ohio, Oct. 4, 1900.

HYGIENIC WHEEL CO.,
220 Broadway, New York.

GENTLEMEN:—

The writer is so thoroughly elated with the sales of **Cushion Frames** that it will, perhaps, please you to share in the enjoyment. Your **HYGIENIC CUSHION** has certainly proved its merits and worth. I introduced the Cushion Frame in Toledo, and my efforts have been rewarded with a revival in wheeling without precedent. Many men and women, who had given up the bicycle, owing to discomfort, have, upon a trial ride only, given me their order, and are to-day enjoying comfort and ease in the daily use of their bicycles. The universal expression is "The right thing in the right place." Each sale brings me additional converts. I am confirmed in the belief that the **Cushion Frame** will eventually be the future wheel for general riding.

Yours very truly,

J. G. SWINDEMAN.

You will find the **Cushion Frame** bicycle to be a great trade winner, and your 1901 line will not be complete without it.

Write your manufacturers about them.

NOTE:—Cushions are attached only to **HIGH GRADE BICYCLES.**

SARGENT'S INOMOTOR

Harvard's Professor Designs a Machine "to Make Cycling Attractive."

Cyclists, so it is asserted, develop their legs at the expense of the upper part of their bodies. Rowers, on the other hand, are accused of doing just the reverse—of developing great muscular power in the arms and chest to the sore detriment of their legs.

Consequently, the perfect athlete would be he who was both champion cyclist and champion oarsman. This union of the two is brought about by the use of the Inomotor, an apparatus invented by Dr. D. A. Sargent, director of Harvard's gymnasium, after four years spent in the endeavor to produce a device that would avoid the weak points of the usual gymnasium apparatus. Briefly, it resembles a frame mounted on three wheels and propelled by hands and feet, as in a rowing machine.

One of the criticisms that is frequently made against the developing apparatus of the gymnasium, says Dr. Sargent, is that the exercises are monotonous, and have no element of pleasure or excitement about them, such as is afforded by races and competitive sports and games.

Realizing that this criticism is to a certain extent just, an attempt has been made to supply the element of pleasure and excitement by having some apparatus so constructed that the exercise taken with it sets it in motion, thus affording an opportunity for competition in different kinds of races on the floor of the gymnasium, as rowing, paddling, sculling, etc. By reducing the gear for indoor use and competitive purposes the apparatus may be made to record so many feet to the mile, while the same kind of apparatus may be geared up to allow of considerable speed where there is plenty of room on roads and tracks out of doors.

Up to the present time the bicycle seems to be the only mechanical contrivance that has been used successfully for locomotive exercise. Various attempts have been made to propel vehicles of one kind or another by hand or foot power, either singly or combined, but for one reason or another all of these attempts have been abandoned, and to-day, in spite of the demand for some such mechanism, there are but very few in existence. The bicycle is about the only one that is much used.

In order to make bicycling attractive as an exercise it has been found necessary to make it so easy that the wheels almost go by themselves. The artisan has so improved the mechanism of the machine that friction has been reduced to a minimum, and only the smallest amount of power, a drawbar pull of about four pounds for the average man, is necessary to propel a bicycle on a good, level road. The ability to cover such distances in a short space of time is not due to any sudden increase in the strength

and endurance of the race, as one might infer, but is simply another tribute to the skill of the man who has modelled such a machine. It is just this factor that has made the modern bicycle an indispensable adjunct to every household as a time saving, strength conserving, useful agent. But the ease with which the bicycle can be propelled and the very few muscles which are engaged in the operation lessen its value as a means of physical exercise and development.

In this new mechanical device or invention I have endeavored to introduce a new principle into the art of propelling land or water vehicles, of using gymnasium machines for developing purposes, and of applying human power so as to realize the greatest amount of work. In devising this mechanical arrangement I have had several correlated objects in view:

1. The invention of a machine that will afford the best means of strengthening and developing the principal muscles of the body.

2. A machine that will permit of the use of the muscles in a perfectly natural way, each group according to its strength.

3. A machine that will bring so many muscles into action at one time as to develop the heart and lungs, without causing distress through vigorous efforts made in faulty positions.

4. A machine that will make exercise pleasurable and enjoyable through its beneficial influence on the entire system.

5. A machine so constructed that every movement of flexion and extension in trunk, legs, feet and arms adds to the propelling power.

6. A machine that will admit of one group of muscles being used while others are relaxed, or of one part of the body to rest while another part is being brought into action, or of legs, trunk and arms being used simultaneously, or of all the important muscles being used in succession.

7. A machine that could be used for the reduction of fat or obesity through general muscular activity without obliging the individual to support his own weight, and thereby strain the muscles and tendons of the feet and legs before the rest of the body has had exercise enough to bring about a vigorous circulation and respiration.

8. A machine that would act especially upon the back, waist and abdominal region, which I have come to consider the weak points of many of the American people of both sexes.

9. A machine that would tend to correct the drooping head, rounded shoulders and flat chests which characterize so many of our school children, students, literary men and those who pursue a sedentary occupation.

10. Finally, a machine so constructed that it is almost a gymnasium in itself, that can be used indoors or out of doors, and that can be applied to the propulsion of vehicles on the land, ice or snow; or to the propulsion of boats, by means of oars, paddle-wheels or propellers.

The mechanism which I have contrived for the accomplishment of these several objects, and which I have termed an Inomotor, may be described in its simplest aspect as a pair of levers connected by four adjustable rods with a sliding seat and a sliding foot rest, which are each in turn connected by a power applying rod to a crank on a gear or sprocket wheel.

WHERE CAN YOU MATCH IT?

Our Indian No. 1, We Mean.

Here's its makeup:

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\$25.00

One Year's Guarantee.

BEST SEAMLESS TUBING

STEEL DROP FORGINGS

TRIPLE PLATE CROWN

INTERNAL EXPANDERS

SAGER SADDLE

DUCKWORTH CHAIN

FISK GUARANTEED TIRES

and our

Indian No. 2 at \$30.

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Red Indian at \$35

are equally
matchless values.

OUR TERMS TO AGENTS

are as attractive as the wheels themselves. Is that hint enough for you?

HENDEE MFG. CO. Springfield, Mass.

MOTOR LUBRICATION

One of the Important Matters that is too Often Overlooked.

No one questions the assertion that motor makers not only do the best they can, but do very well indeed. The state of the art is not yet sufficiently advanced to permit of the production of anything very near perfection, but it is the constant striving for this much-desired quality that will do most for the improvement of present patterns.

One of the first criticisms a novice will make is of the method of oiling. It seems to him—especially if he bears in mind the small amount of attention the ball bearings of his cycle require—absurd to be getting off every ten or fifteen miles to inject a measure of oil in the motor. Nor does the manner in which this oil is distributed to the various working parts impress him any more favorably. At the same time, he will be compelled to admit that it is not easy to see how any radical change could be made.

The matter is gone into pretty exhaustively by a writer in an English journal.

Considering that the matter of lubrication is one of real importance in motors developing the amount of heat and running at the high speed that cycle engines do, he says, I think that much is left to be improved in this direction. The De Dion system of lubricating tricycle motors on the splash principle is very efficient if certain conditions are fulfilled.

These are, first, that a bath of oil of a certain determinable measure is always present. Secondly, that there is no undue feed or leak of oil in channels where less would be beneficial. Thirdly, that the bath or measure of oil in the crank chamber should vary according to the quality and viscosity of the oil used.

The present method in universal use in all motors of the De Dion type, to pour or pump a certain measure of oil (more often guessed at than not) every twenty miles, or according to the whim of the driver, is exceedingly faulty in theory and pernicious in practice. Granted that the motor is lucky enough to start away with a proper supply of oil, is it not obvious, even to a novice, that every revolution of the fly-wheels is reducing this quantity, and that by the time the overheated motor has accomplished, say, ten miles at a fast pace the oil bath is very appreciably reduced, there is no longer the proper amount of oil to splash, and this at the very time when the piston is groaning for more and some other part of the motor seriously considering whether it shall not go on strike and refuse to work another second?

Some fatuous motorists imagine that by being very generous in the way of oil they overcome this difficulty. One individual of this type, who, by the way, is always having his induction valve "glued" up and his

exhaust valve leaking like a sieve, always starts off with a cloud of white smoke pouring from his exhaust box, and repeats the dose at nearly every hill he comes to. This man's tricycle can be smelt afar off, and, with the best intentions in the world, his one little motor does more harm in prejudicing the "man in the street" than half a dozen full-fledged Daimlers. Another man I know is exactly his opposite, and his one boast is the number of miles he can run without stopping to oil his motor. Needless to say, he has benefited the railway companies on more than one expedition; his nearly red-hot motor has suddenly jibbed, and a funeral procession to the nearest station has resulted.

It is evident, therefore, that so long as the present happy-go-lucky method of lubricating motors of tricycles is in vogue, so long will troubles emanate therefrom. The man who uses too much oil has valve troubles and is an unmitigated nuisance; the man who uses too little has the inevitable seizures; and the man who religiously carries out the maker's instructions, and pours or pumps at regular intervals, is lubricating his motor unequally. It is like being by the sad sea waves, high tide at one time and pebbly beach the next.

The remedy is obvious. Motors lubricated on the oil-bath or splash principle must have a regular automatic feed of oil that will keep a certain determinable measure always present in the crank chamber. Some motors are very wasteful of oil, and start dripping wherever they stop. This is entirely due to a leak, which can easily be remedied, and economy and cleanliness point to the advisability of doing so. Sometimes the leak is at the joint in the crank pit, but more often through the axle bearings, and also at some joint between the oil tank, pump, or pipe leading to the crank chamber. Leaks along axle spindles must be stopped with suitable washers, fitted tightly to resist the forcing of oil outward on each compression in the crank pit; leaks in joints by remaking same with fresh packing. The joint down the centre of the crank pit should, however, require no packing.

The plug, or tap, at the bottom of the crank pit should frequently be opened to drain out dirty oil, and occasionally paraffine should be squirted in to wash it out more thoroughly. Needless to say, the paraffine must also be all drained out, and a correct measure of motor oil poured in afterward.

What Williams Wants to Buy.

P. A. Williams, jr., who was formerly connected with the Overman Wheel Co., at Chicopee Falls, Mass., and afterward assisted the trustee in disposing of the large stock on hand, has formed the firm of Williams & Co., with headquarters at Chicopee Falls. He recently consummated a considerable deal in Lovell Diamond bicycles, and states that he is in the market to pay spot cash for similar stock which receivers or assignees may have for sale.

HAUTIER'S EXPLOSIONS

Ingenious Chamber Which an Englishman Has Devised for the Purpose.

How it will work in practice is a mooted question, but the device patented recently in England by C. Hautier certainly possesses the merit of ingeniousness.

His invention is for a gasoline motor with a variable explosion chamber, which permits part of the charge of gas to be drawn off when desired before the explosion takes place. This relieves the chamber of too great strain, prevents undue heating and facilitates the starting of the machine.

This invention, says the description, relates to the application of an auxiliary chamber in the head of a motor cylinder. This chamber is closed or opened to the cylinder by a quick thread spindle valve operated by a lever. A valve seat is provided to prevent the escape of gas when the valve is open. The thread on valve is a loose fit, allowing of the passing of some gas.

The object of the invention is to provide a means for increasing or diminishing the area of the explosion chamber and providing a relief outlet therefor whereby the starting of the motor will be facilitated by increasing the capacity of the explosion chamber, thus reducing the force of the explosion and at the same time permitting a certain portion of pressure due to the exploding gases to escape into the atmosphere, and, after the motor is in motion, to reduce the capacity of the explosion chamber, and at the same time confine the entire force of the pressure due to the explosion to the piston, it, of course, being understood that the charge of explosive mixture which is admitted to the explosion chamber is constant at all times.

Photographing the Speed.

One difficulty in the way of putting a stop in the city streets to fast riding on motorcycles and other motor vehicles arises from the inability of the police to catch the culprits. Even when they are able to do this a dispute usually arises as to the rate of speed, the two stories told differing widely.

To get around this an apparatus is said to have been devised by a Frenchman which will substitute exactness for guesswork. It is intended to furnish specially trained police officers with a photographic apparatus which takes two pictures at a second's interval, with which all motor vehicles travelling at too high a speed will be photographed. The special construction of the apparatus will allow of such plain pictures that a speed calculation can be made according to the distance of fixed objects and the time difference of taking the two photographs. Only a detailed description could give an idea of the very clever invention.

THE STEERING OF IT

The Motor Bicycle Disconcerts the Theorist and Skeptic, and How.

"Motor bicycles may be all right," remarked the owner of a three-wheeler to the *Bicycling World* man recently, "but I doubt it very much. They must be singularly liable to falls, and when a fall does occur it is likely to go hard with machine or rider—perhaps both."

"But the testimony of those who have had most experience with motor bicycles is quite the reverse of this," he was told, "and surely they ought to know."

"Yes, they ought to know," was the reply, "and while I don't want to question their testimony, I still contend that they are wrong, and that the bicycle is not safe."

"I have never ridden one, I will admit," he went on, "and usually that ought to put me out of the discussion. But my experience with the tricycle has been pretty extensive and should qualify me to speak with some authority on the subject of bicycles. Therefore I say that they won't stand up, because it is not reasonable that they should. The experts you speak of may be perfectly honest in asserting the contrary, but you know even experts may be mistaken."

The above is a fair sample of the tenacity with which people prejudiced against the two wheeler will hold to their opinions. There is really no use in attempting to argue with them; "a man convinced against his will remains of the same opinion still," but in their case it is impossible to convince them at all.

It has been urged in some quarters that the weight of the motor will in itself render a motor bicycle unstable; while some observers qualify this by saying that if the motor is placed much above the centre of gravity or in front of the steering it will have the same effect.

Although this is more reasonable than the criticisms of the motocyclist referred to, even it will not bear a close examination. Designers who have given the subject special study contend that there is nothing in either of these theories, and this in spite of the fact that many of them place the motors low and back of the handlebar.

If any motor bicycle could reasonably be expected to be "cranky" and unstable it is the Werner type, i. e., that, with the motor placed in front and above the fork crown. Yet testimony—no small part of it hostile and even prejudiced—is almost unanimous in affirming that this method of construction carries with it none of the faults urged against it. Most designers select some other part of the bicycle to carry the motor, but for other and entirely different reasons.

"I believe in placing the motor low and back of the front fork," said one motor manufacturer in reply to the *Bicycling World* man's question. "But not for these reasons. In fact, I have found that it does not make any difference where the motor is placed. The machine runs just as steady with it high as low, and the idea that it is otherwise is an entirely mistaken one."

In short, the people who know—that is, who have actually ridden motor bicycles—unite in saying that as far as the handling is concerned it is impossible to distinguish between a motor driven machine and one propelled by the pedals. It would be a capricious critic who would demand more than this.

Low Rates to the South.

Excursion tickets at reduced rates are now being sold by the Chicago, Milwaukee & St. Paul Railway to the prominent resorts in the South, including Jacksonville, Fla., Mobile, Ala., New Orleans, La., Savannah, Ga., El Paso, Tex., which are good for return passage at any time prior to June 1st, 1901. Information regarding rates, routes, time, etc., can be obtained on application to any coupon ticket agent of the Chicago, Milwaukee & St. Paul Railway. ***

CYCLE, 53; HORSE, 48

Accident Insurance Statistics Bring this September Score to Bear.

Figures just given out by the Travellers' Insurance Company, of Hartford, Conn., of the accidents occurring to its insured members during the month of September afford an interesting study.

It appears that 1,323 persons suffered 234 different kinds of mishaps, and received \$23,814 therefor. The injured persons paid the company but \$24,000 on their policies, while they received in return—not all in September, however—over \$116,000.

Nearly 85 per cent of the accidents for which it paid compensation were due to modern machinery. The larger number of them were caused by steam and trolley cars, and the bicycle has at last proved itself more dangerous than the horse in the proportion of fifty-three to forty-eight.

Electricity, dynamite, gas, coal oil, gasoline, gunpowder, acids of various kinds, and ammonia are the causes of many injuries, and all labor-saving devices, from the emery-wheel to the lawn-mower, are active agents in cutting and bruising their owners.

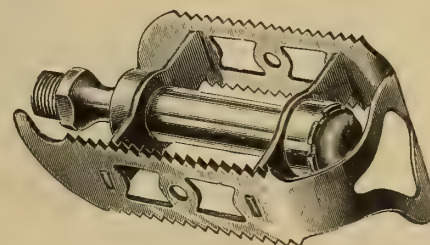
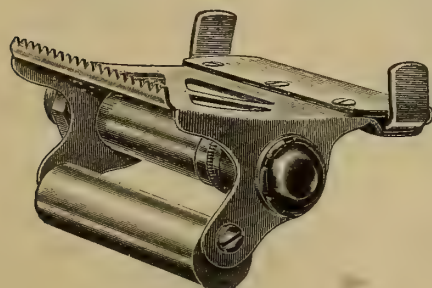
The automobile is as yet comparatively harmless, and threw out but one man and ran over another's foot. Even of the 15 per cent of accidents not directly resulting from machines, many are due to modern conditions.

To Prevent Thickening of Oil.

Lubricating and illuminating oil, after being kept standing for some time, will usually get thick. This can be prevented, says a British paper, by putting a few small lead shot or pieces of lead in the can containing the oil.

**WE ARE RECEIVING VERY GRATIFYING ORDERS FOR THESE NO. 12 PEDALS,
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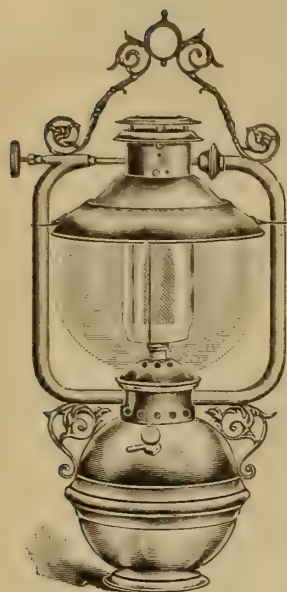
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TO SATISFY AND PERSUADE YOU TO BUY.**



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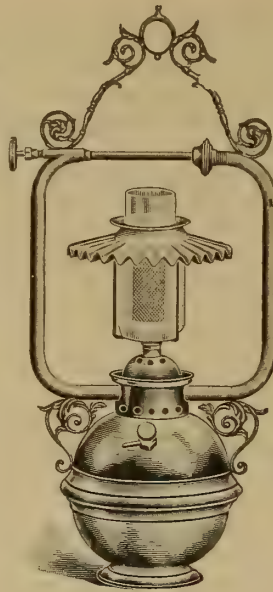
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DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless
Rocker Joints. Insist on having the
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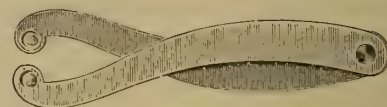
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The "FLEMING" Motor LEADS.



Use it
on your
Motor-cycle.

Fleming Mfg. Co.,

93-95 Elizabeth St., New York, U. S. A.

Helps in Brazing.

Mention has been made of coke and asbestos as the fuel with which the heat of the blowpipe is augmented, and a few words may be devoted to the respective merits of the two, says an exchange. Asbestos is altogether preferable where sufficient blowpipe power exists, as it is, in the first place, more cleanly, and it absorbs or parts with heat more quickly than coke. In doing continuous work with coke, the coke fires and spreads, and the under fire of coke becomes so hot that the work is in danger of being burned, while the nice variation of heat due from the blowpipe is counteracted or overpowered by the growing coke fire, a further objection to coke being the sulphurous fumes given off, injurious alike to operator and any bright metal or plated work in the vicinity of the hearth. On the other hand, where the blowpipe is weak, the coke fuel is a very great aid on large joints.

On the whole, though, asbestos is much to be preferred, not only on account of cleanliness, but because of the ready manner in which the cubes may be disposed around the work and the intervening air spaces filled. Again, it frequently happens that it is necessary to cover or protect some portion of the work from the direct heat of the blowpipe, and a few cubes of asbestos suitably disposed provide the requisite shield.

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

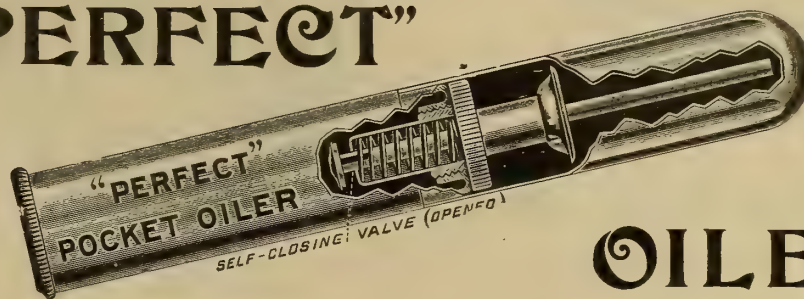
Glycerine for Gas Lamps.

When filling the acetylene lamp with water it is a good idea to add one part of glycerine to three parts of water, says an English print. The result of this combination is to cause a much steadier generation of gas, preventing the spluttering and jumpiness in the flame often prevalent in even the best acetylene lamps.

America Still Leads.

"The Americans, having lost their cycle export business, are quick on the ground with light, smart-looking motor-cars."—English exchange. But the Americans have not lost the cycle export business. It has shrunk considerably, but at that it is the lion's share of the world's trade. England is still a poor second in the race.

"Motocycles and How to Manage Them." The only book of its kind in existence. Price, 75 cents. For Sale by The Goodman Co.

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by the teeth of its sprocket but you can tell its quality by the chain that runs over them.

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you may be sure that the makers of the bicycle are not building on the Cheap John plan. If the bicycles you handle are not fitted with Duckworths, specify that chain when you order. If it is refused you, you will have a certain cue to the quality of the wheel.

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The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., January 10, 1901.

No. 15.

AFTER MCPHERSON

He Keeps Out of the Way, so His Pierce Stock is Seized.

As a step incident to the conduct of suits brought against Robert W. MacPherson, of Buffalo, N. Y., Deputy Sheriff Sloan last week attached some of the stock and dividends of the George N. Pierce Company, which stock and dividends were held by MacPherson.

The attachment was made on two writs, one of which was obtained by George N. Pierce and the other by the Third National Bank. The former has begun a suit against Mr. MacPherson to recover \$500 alleged to be due on a four-month note given by MacPherson in November, 1899. The bank has begun a similar action to recover \$410, the balance due on another note for \$500 given by MacPherson to the bank last April.

The attorneys presented to Justice White affidavits showing that a constable had been unable to serve the papers in the suits upon MacPherson, and expressing the belief that he is trying to dodge the service.

MacPherson's business is that of a general auditor.

Shelby will Move to Chicago.

Before the year is much older Cleveland will cease to be the headquarters of the Shelby Steel Tube Company.

The handsome offices there will be discontinued and the president's office, the general sales office and the auditing department be removed to Chicago; all other interests will be centred in the mill at Shelby, Ohio.

The move is not wholly in the nature of a surprise, however, as it was known to have been under consideration for some time and the fact that the homes of several of the officers were in Chicago aided in forecasting the removal.

At the Shelby mill 600 men are reported employed, with the prospect of an early increase to 900.

Got their Papers.

Discharges in bankruptcy were granted by Judge Brown, in the United States District Court, on Wednesday, to J. D. Racey, of Orange, N. J., and S. W. Merrihew, of New York.

Pope Capital Stock Reduced.

The capital stock of the original Pope Manufacturing Co. has been reduced from \$100,000 to \$5,000. This is a Connecticut corporation, which was succeeded in business by the company incorporated in Maine, as the Pope Manufacturing Co., the latter taking over most of the assets of the old concern. It has been necessary to keep the old company in existence on account of some matters relating to patents and other phases of the business until these can be closed up. The large capitalization was not necessary, however, and the capital is reduced under the statute to a sum sufficient to cover all unliquidated matters.

Deal Failed; Promoter Jailed.

John A. Barham, who is styled a promoter, was arrested in this city last week on an order signed by Justice Leventritt, of the Supreme Court. Bail was fixed at \$2,500. The arrest is the result of a suit brought against Barham by John W. Richardson, of London.

In his complaint Richardson says that in 1897 he gave Barham \$2,435 with which to purchase a one-fifth interest in a syndicate formed to buy up English patent rights in an acetylene bicycle lamp. The negotiations fell through, and Richardson asserts that he has never been able to get his money back from Barham. He therefore brings suit to recover it, and charges Barham with conversion.

What Prevents Warwick Settlement.

Although the present bankruptcy law has been in force nearly two years, the Insolvency Court at Springfield, Mass., still has several cases before it which date farther back than that. One of these is the case of the Warwick Cycle Mfg. Co., which came up last week and was continued to March 6. With the closing of this and other cases will come the dropping out of existence, so far as the county is concerned, of such a thing as an insolvency court. The cases are hanging on, however, and it is impossible to settle some of them at present on account of other litigation connected with the estates.

Moves with the Times.

The Ward Automobile and Cycle Co., of Brookline, Mass., has been formed to take over the business of the Ward Cycle Co., and, in addition, to conduct an "automobile stable."

CARNEGIE COMES

Reports say that Cycle Tubing is Included in His \$12,000,000 Project.

To every industry in which tubing is used the Carnegie Co., of Pittsburg, has been an object of unusual interest during the past week.

The announcement that Carnegie would erect a \$12,000,000 steel pipe and tube plant in Conneant, Ohio, to compete with the National Tube Co., was cause enough for the interest.

At first the cycle trade was not much concerned, as it was said that "merchant pipe" would be the chief output of the projected Carnegie mill, but late reports specifically state that it means to compete directly with the Shelby Steel Tube Co., which means that Carnegie will also have bicycle tubing to sell, and that the project is not without interest to the cycle trade.

Of course, the Carnegie mill has still to be constructed. It takes time to put up a \$12,000,000 plant, so that except in prospect, Carnegie tubing will cut no figure for some time to come, if, indeed, it ever cuts a figure in the cycle trade.

To Modify Gasolene Restrictions.

Senator Platt, of New York, introduced in the Senate, on Wednesday, a bill drafted by the Law Committee of the Automobile Club of America, modifying the statute relating to the carriage of gasolene on passenger boats. Representative Fitzgerald, of Brooklyn, will perform a similar service in the House. Copies of the bill will be ready in a few days, and will be sent to the members of the Associated American Motocyclists, who will endeavor to secure Congressional support for the bill.

Rich Find for Pierce.

Fuel gas has been struck on a farm at Sturgeon Point, near Buffalo, the property of George N. Pierce, the well known bicycle manufacturer, after boring for it since last summer. Great secrecy is preserved regarding the matter, and Treasurer Clifton, of the Pierce Co., who was interviewed in the absence of Mr. Pierce, declined to talk about the matter further than admitting that the boring had been going on.

NOVEMBER'S EXPORTS

Substantial Gains in Several Directions but Japan's Purchases Fall Away.

November was what might be termed a fair month in the matter of cycle exports. While there were losses, as usual, there were more gains than for several months past.

The United Kingdom maintained the upward movement begun in October, while "Other Europe" also showed an increase. British North America, the West Indies and the East Indies also developed healthy symptoms, while Africa and the Philippines continued their large purchases.

Of the shrinkages, Japan's and Australasia's are the most notable, those countries having fallen off greatly during the month.

The summary for the month and for the eleven months ending with November follows:

Exported to—	November—		Eleven months ending November		
	1899. Values.	1900. Values.	1898. Values.	1899. Values.	1900. Values.
United Kingdom	\$14,951	\$15,292	\$1,631,214	\$651,690	\$424,513
France	6,414	2,424	479,236	409,310	178,631
Germany	21,936	10,289	1,474,277	776,487	332,927
Other Europe	29,329	31,883	1,184,605	870,435	631,697
British North America	6,802	1,752	4,496	91,302	66,885
Central American States and British Honduras	159	11,459	580,481	524,822	363,982
Mexico	2,221	375	6,687	4,642	2,439
Santo Domingo	—	1,779	54,818	39,822	14,028
Cuba	13,759	80	598	323	312
Porto Rico	170	—	2,561	2,648	1,461
Other West Indies and Bermuda	6,013	7,626	65,523	59,756	46,492
Argentina	5,736	1,584	113,026	264,334	71,815
Brazil	2,399	1,478	93,738	31,313	18,272
Colombia	114	34	7,372	7,752	3,504
Other South America	4,836	2,996	47,188	60,717	38,420
Chinese Empire	1,582	463	26,321	21,465	20,108
British East Indies	2,000	6,746	142,434	119,486	57,443
Hongkong	1,024	1,124	9,289	9,258	8,820
Japan	19,127	5,266	125,625	117,372	226,035
British Australasia	33,631	24,390	220,707	230,079	202,163
Hawaii	3,108	—	—	43,341	32,473
Philippine Islands	—	10,607	100	1,281	65,394
Other Asia and Oceania	7,056	3,751	69,015	46,551	26,042
Africa	7,361	13,131	164,771	148,665	66,427
Other countries	—	—	1,699	274	417
Total	\$189,728	\$154,529	\$6,505,781	\$4,533,125	\$2,900,700

As to Inflating.

To say nothing of the risk of misplacing the valve cap, it is a good bit of a nuisance to have to go through so many operations as are necessary in order to inflate a tire.

There is the valve cap to be taken off and carefully deposited in a place of safety, the pump connection to screw on to the valve, then, frequently, the connection belonging to the pump, if it is a foot pump, has to be screwed to the first connection. Everything is then ready for the inflation. Next, all these operations have to be reversed, ending with the replacing of the valve cap if the worker is lucky enough to find it.

Many devices have been invented, designed to lessen or do away altogether with so much work. But in spite of the partial success of some of them, the old way is still resorted to by an overwhelming number of riders, and the probability is that it will be continued for a long time to come.

Tried with a Tap.

Trust the repair man of to-day to go about a job in the quickest and most direct manner possible. To him more than to most people time is money, and the more he can save of it the greater his profit will be.

A few days ago the *Bicycling World* man watched an old hand at the game at work. He took from a pile of machines one with a broken pedal, the pedal itself having been taken off and thrown away by the careless rider. The first thing to do was to find what kind of a pin would fit the crank, and to do this the repairer took down a small box containing a number of taps. One of these he tried in the hole in the crank, but it would not fit. At the third attempt, however, the trial was successful, and he rose from his knees saying that it would take a pin with a 5-16" shank, 20 threads to the inch, and left hand threads.

"Years ago," he said, replying to the sur-

prise expressed in his visitor's face, "I would have gone about this differently. I would have tried to gauge by my eye about what sort of a pin would fit, and then endeavored by trying old pins in the hole to make sure of it. With the tap, however, I get this information more quickly and am absolutely certain that I am right."

Simplifies Matters Greatly.

No small amount of ingenuity has been displayed in the invention of a device which, although striking in its simplicity, appears to fill the want for a better pump connection.

The connection is in two pieces. One fits on the flexible tube of the pump while the other is screwed tightly on the end of the valve in place of the ordinary cap. The valve connection has a hinged cover, which precludes dust and dirt entering when the wheel is in use. The pump connection is simply pushed into the valve connection and the cover partly closed to engage with the flange on the pump connection and prevent its withdrawal during inflation.

HOT SPARKS WANTED

As a Result, Wet Accumulators are in Demand—Other Items for Abroad.

London, Dec. 26.—According to a visit I recently made to Peto & Raford's works in Hatton Garden, it would seem that the demand for wet accumulators for motorcycles is increasing very rapidly. The firm has for some time made a specialty of such accumulators, designed to fit within the ordinary case in which the usual dry batteries are carried. A great number of motocyclists appear to prefer the wet accumulators, in spite of the fact that they have to face the difficulty of recharging. The real reason is that the spark is much hotter, owing to the internal resistance of a wet accumulator being practically nothing, whereas that of a dry battery is very considerable. Consequently, although the latter type shows five volts, whereas the wet pattern only indicates four, yet the firing of the wet is much better and more certain, even when the mixture is not quite perfect. This latter point is a great consideration, especially when starting.

It is with the idea of procuring a hot spark that so many motorists now use dry batteries having six cells, and yielding, when in good condition, a little over seven volts. The result is a hotter spark and more certainty of firing, but the increased weight and complication are against the plan, and in favor of wet accumulators, when the owner can get them recharged easily. A very good way, however, is to try which of the cells of an old dry battery are really exhausted. In most cases it is possible to get at least two which have a good deal left in them, and these coupled onto a new four cell battery will probably give a total of a little over six volts. The firing thus obtained will be good, and, provided that a coil of sufficient strength be employed, will yield a better all round result. The worst of the matter is that a number of the coils made and sold are not sufficiently strong to resist a high current, so that such an expedient as that suggested should only be attempted with a high class coil. Some of the older De Dion coils will stand as much as ten volts with safety, but this is an amount which is always excessive. Such coils will, however, work excellently with six or seven volts, and give more satisfaction when so run. Some of the smaller coils will barely stand five volts, so that some care has to be taken when increasing the current.

Still, there is a decided tendency to increase the E. M. F. on cars and motorcycles, owing probably to the fact that a really hot spark will fire a somewhat defective mixture, and so render starting less irksome. This is particularly noticeable with small cycle cars—if I may so describe them—having motors of

the "De Dion" type, but started by hand. It also appeals to those motocyclists who object to pedalling about fifty or sixty yards before getting the motor to start. This class of rider is rapidly increasing, as the motorcycle is being taken up by the more wealthy men, who are, as a rule, somewhat too advanced in life to care to struggle with a motor which will not start properly after the machine has been ridden a few yards.

I hear that it is not at all unlikely that the market in motorcycles will be still further cut at an early date, owing to the throwing upon it of a fairly large bankrupt stock of motors and motor parts. The bankrupt stock business has been partly accountable for the depressed condition of the cycle trade, and it would seem that the motor industry is not to be left alone in this matter. Reasonable reductions we can do with, and in the end they will be good for the trade, but bankrupt stocks sold at any price is quite another matter! Moreover, there does not appear to be any satisfactory way of dealing with the evil.

With perhaps the exception of the Ariel Company, Ltd., none of the English motorcycle manufacturers seem to be able to compete with the French makers, and with most people it is a case of either an Ariel or a genuine De Dion. Next to these, the trade is in local makes of assembled machines, mostly fitted with De Dion motors, as, in spite of the extra power obtained from the Phœbus-Aster engines, the constant breakages to which these seem exposed, have not tended to force them more to the front. It is not that the workmanship or material is bad, but on account of the design, wherein sharp shoulders are employed, instead of the studs being nicely tapered into the holes, and so reducing the breaking strain. The motors made by the Motor Manufacturing Company, Ltd., under the De Dion patents, are also popular, but as yet the public still cry for the genuine De Dion.

This Christmas there were a great many more motorcycles to be seen on the roads near London than in previous years, which clearly points to the fact that the pastime is rapidly growing in popularity, but in spite of this, the number is by no means so large as I should like to see it. The wet weather and bad roads have gone greatly against the motor, mainly on account of the great amount of cleaning which such machines require after a day's trip. We must have better mudguards and less chance of short circuiting should the wet reach the wires. With these, after all very minor improvements, the motorcycle should prove a most useful machine in winter, instead of only being a fair weather vehicle, as it is now generally looked upon. There is still a great deal to be done in the way of inclosing the gearing and working parts, and when this is accomplished, the public will take still more readily to the motorcycle.

ARE RIDERS READY?

For Motorcycles, of Course—One Dealer's Evidence in the Affirmative.

"Are the people ready for motorcycles?" repeated the dealer, looking at the *Bicycling World* man with apparent wonder that he should ask such a simple question. "Well, I should say they were.

"Why, the best illustration of this readiness is found in a case that came to my notice a short time ago. A rider who had been looking into the motor question gradually worked himself up into a fine state of enthusiasm, and nothing would do then but that he must have a motor bicycle.

"The price of a new machine complete was rather too much for him, so after looking about a little he decided to buy a motor and have it fitted to his bicycle. He then hunted around until he found some one up in New England who offered to supply a complete motor for \$70. Of course, the price was enough to arouse the suspicion of any one who knew much about the subject, but the rider took it all in good faith and sent on an order, accompanied by the requisite \$70.

"That was some two or three months ago, and he is still looking for the motor—or, rather, he has at last ceased to look for it, and put the concern down as a fraud. He waited for a while, being put off with promises, and finally even they ceased. His letters were not even noticed, and after his first anger was over he decided that his money was gone, and that it was not worth while to spend more trying to bring the fraud to book.

"One would think that this experience would have dampened his ardor, especially as he had never even seen a motor or a motor bicycle, much less ridden one. But no, he was pretty badly afflicted with the craze, and, in addition, was game. So he washed his hands of the New England matter and started on a fresh tack.

"This time nothing would satisfy him but a complete motor bicycle, and that, he said, must be placed before him and tested before he would pay a cent down. He made a round of the cycle stores and found that while there was much talk of motor bicycles there was no actual business being done. No one had even a sample. He had to go by cuts and descriptions in making his choice, actually delivering machines his selection but as there were only one or two concerns was not so very hard to make.

"The upshot of it was that he placed an order with the concern that handled the Orient for one of their motor bicycles. He paid \$150 to bind the bargain, agreeing to take the machine if it was as represented, and did all that was claimed for it. I heard to-day that the machine had arrived, and I

am looking for it to whiz by at almost any time.

"I honestly believe that half a dozen motor bicycles in the hands of riders here would start the town on them. People are talking about them and wondering who will be the first to get one, and while the price would be against them for a while it would only be necessary to have a start made to create a good demand.

"When spring comes I regard it as a foregone conclusion that a start will be made. At present everybody—dealers as well as riders—are at sea as to the best makes and kinds, and their uncertainty on these points and the price will keep the motor bicycle back for awhile. But they will come, and what we want to know is who has the best machine and is able to make prompt deliveries.

"Between now and March we are going to study these questions, so as to be prepared to do something when the season opens. But what we want is information on these two points, and the concerns that make the most satisfactory replies to the questions that are being asked will reap a rich reward."

Uses Double Faced Cones.

New ideas, or even changes, in bottom bracket construction are not often encountered nowadays, so near to practical perfection are most of the machines on the market.

An innovation in this respect has been made by an English concern, which, while by no means new, is yet a good thing. Instead of turning the cones in one piece with the axle, as is so frequently done, they are made separately and screwed on, thus permitting of a renewal without getting a complete new axle. Furthermore, the cones are double nosed, that is to say, they have each two ball race surfaces, one on either end, so that in case of undue wear the repairer has only to take off the cone and reverse it, when an entirely new and true bearing surface comes into use.

The axle proper is not hardened but is provided with two screwed portions, the screw is right handed, while on the other it is left handed. Upon these two screwed portions the hardened and ground cones are screwed bearing tightly against the faces of the two shoulders in the centre of the axle. Owing to being fitted with right and left hand threads the cones have no tendency to unscrew, the tendency of the friction in the revolving bearing being to keep them closely up to their work.

Weiant's Way of Working.

An unusually handsome and comprehensive catalogue has been issued for 1901 by E. T. Weiant, the well known Denver, Co., jobber. Over 100 pages are devoted to cuts and descriptions of all articles used by the retail cycle trade, the list ranging from spokes and nipples to automobiles, the latter being carried in stock.

THE LIFE OF A BICYCLE IS IN ITS BEARINGS

**NATIONAL
BEARINGS
USED
AS AN
ADVER-
TISEMENT
AFTER
RUNNING
30,000
MILES.**

There was one thing that occurred (in 1896, I think,) that I have not mentioned, that helped me a whole lot. In 1896 I sold a wheel to a man who was noted a hard long-distance rider, and in those days you know we were all working for century-bars. He rode the wheel all season and most of that of 1897. In the fall of the latter year he decided to go after some long records on the road. He believed his National was the best on earth, so, notwithstanding the fact that he had ridden 16,000 miles on it, in which were included 40 centuries, and, perhaps, ought to have ridden a new wheel, he went ahead. The roads weren't the best in the world, but he cleaned up the triple and quadruple century records in good shape. We felt so pleased over it that after the wheel had been ridden 30,000 miles we took out the bearings from his wheel, just to use them as an advertisement, and we have them yet. They do not show a blemish of any kind, and as I know you are making the same kind to-day, I am satisfied to talk hard for Nationals.

That was written by one of our old customers who has specialized his trade by selling Nationals, and does an annually increasing and profitable business.

NATIONAL CYCLE MFG. CO., BAY CITY, MICH.



Fisk Tires

**Turn Over a New Leaf
with the New Year**

Mr. Bicycle Dealer, and decide to sell only Fisk Tires.

The satisfactory service and long wear they will give your customers will be to your profit in the end, for where a man is once pleased there he will go again; while, on the other hand if you sell a rider an unsatisfactory tire you have blasted all hopes of future trade with him. He will shun you thereafter, just as a burnt child does a fire.

The Fisk line of tires is complete, and comprises nothing but high grade goods—the kind and the only kind you can afford to sell.

A letter addressed to us will bring you additional information speedily.

FISK RUBBER COMPANY, Chicopee Falls, Mass.

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THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, JANUARY 10, 1901.

The Trade's Cocktail.

The Show's the thing, or will be for a week, at any rate.

There will be newness a-plenty in evidence, however, despite what carping critics may say; the motorcycles of themselves cannot fail to excite public interest to a degree that is certain to result in widespread results, while the increase of chainless and cushion frame models will indicate plainly that the tendency of the trade is making for comfort, and more of it.

The spirit of economy which hovers over the trade will be apparent at the Show. The jobbers will be in greater force than ever, and it is in the multiplicity of wares they will display that many of the articles best known to the trade will be found—or "buried."

The Show has always served a purpose and a stimulating one; it is the trade cocktail, as it were, and the display of this year will create a glow of interest and enthusiasm that will not be denied.

When Courage is Required.

There is such a quality as trade courage. There has been need of it and displays of it in the cycle trade during the past two years.

It is the dealer who resolutely refuses to worship at the altar of low price who will serve his interests most.

The day of quantities has passed; quality is the battle cry of the future. It should echo throughout the trade.

There are those who will close their ears to it and who will tempt competitors by the cry of price; it is sore temptation, we admit, and it is then that courage—that an iron will is required.

If you have not the courage and the will, seek to acquire it; it makes for the health of the industry.

There is no chance, no destiny, no fate,

Can circumvent or hinder or control

The firm resolve of a determined soul.

All things give way before it soon or late.

Why, even death stands still

And waits an hour sometimes for such a will.

Changes and Their Value.

There is a general impression that the new patterns will show more changes than has been the case for several years past.

The truth or falsity of this impression will be made plain at the forthcoming Cycle Show. Then, and not until then, will it be possible to form an intelligent opinion on the subject.

It is probable that the changes revealed will be more general than radical, and more extensive than such inspection as has been possible so far would indicate. The details of construction appear to have been gone into more thoroughly than was expected.

There can be no question that changes are desired by the public, and the only question is how far it will pay to make them. On the other hand, it is quite evident that the makers must take the initiative and risk something on the prospect of thereby helping sales. They have tried the experiment of standing "pat," and this policy must be condemned as a failure.

How far on the other task the new patterns will go, or how far they will have to go to accomplish the desired effect, it is not easy to determine at this time.

But there can be little doubt of the beneficial effects of the change.

Some Expected Improvements.

Unless all signs fail, the forthcoming season will inaugurate a healthier system of

selling than has ever been known in the trade.

The wholesale disappearance of former competitors—both makers and dealers—will render it possible for those remaining to bring about much needed reforms.

A clean business should result from the absence of the reckless competition that has been the curse of past seasons. Sales at any cost will not be so prevalent, as few of the remaining dealers will be so shortsighted as to throw away the small profit they might make for the mere purpose of getting the better of some rival.

Along with the anticipated improvement, conservative tradesmen look for a gain in cash sales at the expense of those made on the instalment plan.

The theory is that with the cut throat element largely eliminated, more common sense restrictions will be placed on instalment sales. The latter will no longer be such incentives to double dealing, and even crookedness, as they are at present.

The less desirable class of instalment purchasers will be frozen out. Of those remaining, such as can pay cash for their machines will be offered inducements to do so, while the others will be compelled to pay a reasonable amount down and respectable monthly payments.

It is always in the power of any considerable element holding contrary views to neutralize such well meant efforts; but the view generally taken is that this element will be infinitely less powerful next season and less inclined to indulge in such measures.

The Show's Other Side.

When friends meet, hearts warm, they say, and we know that they say truly.

The Cycle Show is primarily a business function—it is a gathering of commercial rivals, but for all of that the rivalry does not endanger friendships; and hearts will warm.

The cycle tradesmen of to-day have been mellowed by experience; there prevails less strife and more of the fellow feeling; they have more in common than in previous years, they are more concerned in the upbuilding of their industry.

There will be absentees, that is, their signs and their steel may be missing, but they will be there in the flesh, and their eyes will be open—ears too—and their hand clasps warm.

Apart from its dollars and cents, the Cycle Show has another side: it is the an-

nual reunion, the occasion when the friends of cycling meet and hearts warm—the sentimental side, perhaps, but sentiment moves the world.

We could get along without it, but for all of that, we'd miss the Cycle Show did it not come to pass.

Hard on the Maker.

In at least one respect the bicycle business has undergone a change of late years which operates to the makers' disadvantage, while it lightens correspondingly the burden borne by the retailer.

Reference is made to the very much less general observance of the practice of obliging dealers to contract for and take a specified number of machines during the season.

The time was when a dealer could obtain or renew a contract for a desirable make of machine only by placing a definite order for a round number of them. In many cases he had even to give detailed specifications and shipping directions.

Fortified with a sheaf of such contracts, makers could safely go ahead and turn out a certain number of machines. They were already sold, and the chances were that not only would they be taken, but other orders would pour in and account for any surplus which might have been produced.

Without something of this kind on which to base the probable demand, makers professed an inability to make any calculations for the coming season.

How much more some safeguard of this sort is needed now, when sales have undergone such a shrinkage, can be readily understood. Shortages in the supply are a thing of the past, and there is now no such expedient as turning in one direction for assistance when defections come from another quarter.

But this assistance now so sorely needed has been almost entirely withdrawn.

Contracts for a stated number of machines with specified delivery dates are not often executed nowadays. Even when they are the parties of the second part are rarely—almost never—held to them.

It does not pay to hold a gilt-edged customer to such a contract against his will, for his future business is too valuable to jeopardize.

While if the second contracting party is at all dubious in regard to his financial standing it is the height of folly to force on him goods that he does not want, cannot sell and almost certainly cannot pay for.

The result is that each year it becomes more and more the custom to depend on the good will of the retailer.

If he gives the maker's goods a fair showing, and sells a reasonable quantity of them—proportioned to the size of the town and the degree of popularity possessed by the machine—his principal is entirely satisfied.

But the latter is frequently hard pressed to figure out his probable output.

And he is much more apt to keep it down to the point of safety than would be the case if the old way were still in force.

Side Lines and Their Solution.

It frequently happens that problems solve themselves just when they have come to be regarded almost beyond solution.

Something of this kind has happened with regard to the matter of side lines.

The more they were talked about and experimented with the further off did a settlement appear to be. The desire to make a success of side lines was there, but performance lagged painfully behind.

In the course of time, however, side lines came to be much less discussed than formerly. It was remarked by more than one observer that the matter was settling itself; that some dealers were adding them successfully, while others were giving up the attempt in disgust or despair.

This view sizes up the situation pretty accurately, and the reasons are not far to seek.

Some dealers are shopkeepers by instinct or education, and when it became apparent that their stock in trade must be added to if they were to live, they proved themselves equal to the occasion by taking the necessary steps.

Others were not so well equipped, and they either could not or would not fit themselves to select and stock other goods and dispose of them at a profit.

The first class is in the business to stay, while the second can find no permanent place. In the majority of cases he has already relinquished the struggle, and in the others where it is still maintained there is little doubt of the ultimate result.

It is an assertion entirely within bounds, therefore, that only an inconsiderable minority of dealers can maintain an existence by the sale of cycles and related goods alone.

To go farther, it may be said that nearly all of the concerns engaged in the business next year will sell other lines of goods in addition to cycles.

Some of them will even use cycles as the side line, but the preponderance of action will be the other way. Sporting goods, golf goods, phonographs, even firearms, will form the principle lines, although the complete list is infinitely more comprehensive.

But whatever the articles composing the side lines may be, it can be set down as certain that something of the kind must be carried by the dealer who expects to stay in the business.

The day of the exclusive cycle store—save in a few exceptional cases—is over.

Furthermore, instead of this being matter for regret it is a source of gratification.

The trade will be all the better for being relieved of the excessive and unnatural burden it has had to bear so long, and each member of it will have a share in the good results that will accrue from the change.

We've been a long time realizing that cushion frames and spring seat posts make for comfort. When the pneumatic tire first appeared and was reputed a perfect annihilator of vibration, some of the wiser folk pointed out that it was the combination of springs and air tire that would prove the ideal bicycle—the springs to absorb the heavy shocks, the tire to absorb the minor ones. The truth has either been a long time asserting itself or it has taken us a long time to appreciate what comfort really means.

Despite the mooted "decline of cycling interest," it is evident that the rest of the world is keenly interested in the doings and productions of the American trade. Within the past ten days The Bicycling World has received full paid subscriptions from London, England; Melbourne, Australia; Yokohama, Japan; Deventer, Holland; Hanover, Germany; Port Elizabeth, South Africa, and Lahore, India.

One of the English papers has heard that the reason Americans incline to the motorcycles is due to "the difference in temperament between the exercise loving Briton and the American, who is usually looked upon as keener on 'trolley cars' than on outdoor exercise." 'Rah for the "exercise loving Briton"! Pity the trolley-loving American!

It is very pleasant to have October extend itself into January, but if March attempts to project itself into April and May to equalize the seasons, a mighty howl will go up from the commercial world.



ONCE MORE THE SHOW!

Who'll be There and What They Will Display — Novelty Will not be Lacking but Changed Conditions Will be Emphasized—All Signs Make for More Comfort and Increased Interest.



When the gilded goddess that stands tip-toe on the tower of Madison Square Garden last looked down upon that gathering of bicycles and all that follows in their train, which has long been termed the Cycle Show, the cycling atmosphere was not that which will prevail at the Show that opens on Saturday evening next.

Then the air was heavy with doubt, fear, suspicion and combativeness. Not all of the suspicion and combativeness have been dispelled, but of the doubts and fears scarce a vestige now remains.

Last year the vision of a huge octopus hovering menacingly over all was invisibly but definitely fixed in the trade fancy. Imagination saw its eyes dart fire and its long, snakelike tentacles reaching out in every direction, crushing out independent existence and drawing all within its capacious maw.

Some doubted and feared because of the mysterious—the unknown strength and power of the octopus; more suspected its every move, while there still were those who feared not. They stood ready to fight the seeming monster, did it come their way.

It was a new experience, a new situation

or condition such as no previous show had known.

But the twelve-month has been rich in its teachings and its turnings and the Cycle Show now close at hand finds what last year seemed an octopus transformed into an exaggerated jelly fish, which, not a few assert, is quivering under its own weight.

That it was more jelly fish than octopus became apparent months ago and though jelly fish may sting, those whom this one has stung are chiefly those who placed themselves willingly within its scope and who then attended it.

The jelly fish will be there on Saturday night and all next of week, that is, at the Garden—and if you will, just picture in your mind's eye the spectacle of a jelly fish in a garden—it will spread over much space, as jelly fish will, and there doubtless will be those who will claim to see rosy and rainbow hues in its translucency. No Cycle Show was ever free from the "guy" and the guileless; none will ever be.

But let this pass—the Show will hold much that is newer and more pleasing and more tangible. And, bye the bye, don't let it es-

cape you that this Cycle Show in Madison Square Garden is the first industrial exposition of the twentieth century, an empty honor, perhaps, but in this age when "firsts" of all kinds seem to hold intangible credit of some sort, an honor, nevertheless.

The Show will help make plain that so far as concerns bicycles, an age or era of comfort is being entered—it will make plain that the year 1900 was a year of awakening.

Let whoever doubts inspect and take count of the chainless bicycles, the cushion frame bicycles, the bicycles with coaster brakes and spring seatposts and yielding saddles, and last but not far, far from least, the bicycles fitted with motors—the motor bicycles, as the world is fast learning to know them.

The count of these types will almost surely develop more of each than any show that has gone before.

Each type is of the sort that adds to cycling comfort and makes it more pleasurable. Each in its class has earned and deserves a meed of praise and should obtain it, for while the cycling trend made for strange gods and too closely and too long followed the whims and caprices of the man of speed,

these comfort givers were forced into narrow niches from which they have but recently emerged to claim and find their just rewards.

The motor is the latest comer, but it has moved apace and when the list of cycling comforts is catalogued, who will say or wish that that which gives speed without effort and that levels the hill and stills the headwind, is not the mightiest of them all?

Of course, the motor and the motor bicycle are new, in a sense of the word. They lack the perfection and development of other devices that make for comfort, but they do not lack for public interest. A year ago they were scarce talked of. If now they should prove the feature and the drawing card of the Show, let none express surprise. Trade and public interest are whetted to a fine edge and though not a few may sniff and scoff, the more liberal will recall that Rome was not built in a day, and will not only appreciate that motorcycles or any other cycles or anything else cannot be made perfect in a night, and will appreciate that it is well that it is so.

Come what may, however, the Cycle Show of 1901 will mark the first really formal introduction of motorcycles to the public and the introduction will mark the motorcycle's real beginning as a factor in trade and in cycling life.

So far as concerns the general public, there is no reason to believe that it is the motorcycles that will be most sought out, and that the 30-foot track in the basement of the Garden will be the scene of much interesting activity is certain. When the doors are closed at the end of next week New York will hold many more people who will know much more about the machine, who will plume themselves on a successful first ride and who will discover the ease of management and control, and who will talk about it for weeks to come. Such talk will leaven the mass, and the real demand must follow in its train. In this respect the show of 1901 will prove of mighty service.

That the E. R. Thomas Motor Co. will be in the van in promoting the good work is certain. The building of motorcycles is their sole business, and they will have a staff of workers at the show that can scarce fail of substantial results. The Thomas machine is no stranger, but the Stratton motor bicycle will make its debut at the show, and the fact adds interest to the machine.

Unless calculations are upset, the Fleming Manufacturing Company also will have a distinct novelty in this line—a motor so affixed to front forks that any bicycle may be readily converted into a motor bicycle by a mere exchange of forks. Charles E. Miller's exhibit, too, will hold interest for all interested in motors; in fact, the jobbers will cut such a figure in the show that not a few of the novelties and good things will be found among the multiplicity of goods which each will display. There's the Willis Park Row Cycle Company, for instance; their exhibit will prove almost a concentrated cycle show

in itself. It is easier to say what they will not show than to attempt a catalogue of the multitudinous wares they will exhibit.

There will be newness in bicycles, too. A deal of it will be centred in the exhibit of the Stearns Bicycle Agency; it is there that the Regent and the Holland bicycles will make their formal bow to the public, and it can be promised that time spent there in talk and inspection will be well spent. The rejuvenated Victor likewise will make its first public reappearance beneath the sign of its new mentors, the J. Stevens Arms and Tool Company. To those versed in cycling history the mere mention of the name Victor is sufficient to excite interest.

The Pan-American Pierce cannot well fail to prove an attraction. If ever makers were proud of their product, the George N. Pierce Co. are proud of this bicycle. They have other bicycles, but the Pan-American Pierce—there is no doubt that it is the apple of the Pierce eye. It's a bevel geared chainless, and the gears are of the peerless Leland & Faulconer manufacture. Whoever is interested in bevel gears should see and learn for himself the difference between the L. & F. article and the other kind; it's a mighty difference, and the Pierce people are competent to make it plain.

There's the Hendee Manufacturing Company, too. There's much about their Indian bicycles that deserve all heed. Take that \$25 24-pound Indian of theirs—if there's more value for the money to be found under the roof of Madison Square Garden, it will take a microscope to find it. And, talking of values, any one interested in the subject should not suffer the Leroy bicycles to be passed without inspection and inquiry; there will be eye-openers there as sure as fate.

The show will be rich in coaster-brakes. The good old Morrow, the compact and adaptable Canfield, the Wyoma twins and the New Departure will be there; the new Acme and the even newer Cinch will likewise be shown, the latter by the Riggs-Spencer Company, who also will display some revelations in chainless gears and fittings. Whoever has an eye for "poems in steel" will find them there.

Lamps? Of course, there will be no lack of them. Most of them will be shown by the exhibiting jobbers in connection with other wares, but those keen rivals, the Twentieth Century and the Solar, as usual, will shine from firmaments of their own, while a newcomer, the Admiral, will also let its light so shine that all must see.

Bells? The jobbers' displays will be rich in bells, too. The Frank Mossberg Company is almost alone in presenting its own wares. They'll have bells of all kinds, but their "Cuckoo" bell, that suggests the bird of that name, will surely score because of its very novelty.

And tires? Of course, there will be a plenty of them. Things are at sixes and sevens in the tire trade just now, and "tire talk"—and quotations—will rival the tires themselves. The Hartford Special, the new thread fabric

tire, and the new Diamond double tube will be in evidence. They are the newer creations, and have added interest because of the fact. The Diamond inner tube is a radical innovation, and must be seen to be fully appreciated; it has proven a source of wonderment even to those in the tire trade. Unexpected developments, or "finds," are possible wherever tires will be exhibited, however, and if a surprise or two should outcrop do not express amazement.

In contradistinction to the birdseye view, let the following serve as a manseye map of the exhibitors, their locations and their wares:

Spaces 6-21—American Bicycle Company, New York. Bicycles and automobiles. Also spaces 56-80, 100-134, 144-159 and 220-221.

Space 22—D. F. Harris, New York. Jobbing bicycles and sundries.

Spaces 23 and 24—Open.

Space 26—Translucent Window Sign Company, New York. Advertising signs.

Space 27—Hendee Manufacturing Company, Springfield, Mass. Indian bicycles.

Spaces 28 and 29—Manhattan Storage Company, Philadelphia. Jobbing bicycles and sundries.

Space 30—Eclipse Manufacturing Company, Elmira, N. Y. Morrow coaster brakes.

Space 31—Jandorf Cycle and Export Company New York. Jobbing bicycles and sundries.

Spaces 32 and 33—Boston Motor Carriage Company, Boston, Mass. Automobiles.

Space 34—Boston Cycle and Sundry Company, Boston, Mass. Jobbing bicycles and sundries.

Space 35—Stratton Motor Bicycle Company, New York, motor bicycles, and Manhattan Automobile Company, New York, automobiles.

Spaces 36 and 37—Open.

Spaces 38 and 39—Loomis Automobile Company, Westfield, Mass. Automobiles.

Space 40—Boisselot Automobile and Special Gasoline Motor Company, New York. Automobiles and motors.

Space 41—C. J. Downing & Co., New York. Jobbing bicycles and sundries.

Spaces 42 to 50—Warwick Cycle Company, Springfield, Mass. Warwick bicycles.

Spaces 81, 83 and 85—Leroy Bicycles, Buffalo, N. Y. Leroy Bicycles.

Spaces 82, 84 and 86—Stearns Bicycle Agency, Syracuse, N. Y. Wolff-American, Regal, Holland and Elfin bicycles.

Space 87—Open.

Spaces 135-136 and 197-199—Willis Park Row Bicycle Company, New York.—Jobbing bicycles and sundries.

Spaces 137 and 139—George N. Pierce & Co., Buffalo, N. Y. Pierce bicycles.

Spaces 138 and 140—Open.

Spaces 141 and 143—E. R. Thomas Motor Company, Buffalo, N. Y. Motors and motorcycles.

Space 160—Open.

Space 161—William Hengerer Company, Buffalo, N. Y. Jobbing bicycles.

Space 162—Open.

Space 163—J. Stevens Arms and Tool Company, Chicopee, Mass. Victor bicycles.

Spaces 164-166—Open.

Spaces 171-173—John S. Leng's Son & Co., New York. Jobbing bicycles and sundries.

Spaces 174-175—Charles E. Miller, New York. Jobbing cycle and automobile sundries and parts.

Space 176—H. Dixon, New York. Advertising signs.

Space 177—"The Hub."

Space 178—"The Automobile."

Space 179—A. H. Funke, New York. Gas lamps and jobbing sundries.

Spaces 180-181—Canfield Brake Company, Corning, N. Y. Canfield coaster brakes.

Space 182—"American Automobile."

Spaces 183-185—Hartford Rubber Works Company, Hartford, Conn. Hartford, New Brunswick, India, Conqueror and Flexifort tires.

Space 186—Riggs-Spencer Company, Syracuse, N. Y. Sager chainless gears and fittings, and Cinch coaster brakes.

Spaces 187-188—Badger Brass Manufacturing Company, Kenosha, Wis. Solar gas lamps.

Space 189—Averell & Son, Brooklyn. Puncture fluid.

Spaces 190-191—Fisk Rubber Company, Chicopee Falls, Mass. Fisk tires.

Spaces 192-193—Peter A. Frasse & Co., New York. Jobbing parts and sundries.

Space 194—Shelby Steel Tube Company, Cleveland, O. Shelby seamless steel tubing.

Space 195—American Pneumatic Valve Company, New York. Pickett two part pneumatic valves.

Space 196—New Departure Bell Company, Bristol, Conn. New Departure bells and coaster brakes.

Space 200—Diamond Rubber Company, Akron, O. Diamond tires.

Space 201—Acme Coaster Brake Company, Rochester, N. Y. Acme coaster brakes.

Spaces 202-203—P. & F. Corbin, New York. New Departure coaster brakes.

Spaces 204-206—Twentieth Century Manufacturing Company, New York. Twentieth Century oil and gas lamps.

Spaces 207-208—American Dunlop Tire Company, Belleville, N. J. Dunlop tires.

Space 209—Admiral Bicycle Lamp Company, Columbus, Ohio. Admiral gas lamps.

Space 210—James E. Garner, New York. Collapsible bicycle.

Spaces 211-214—Open.

Space 215—J. T. Wherett, New York. Jobbing, bicycles and sundries.

Space 216—Coe Manufacturing Company, New York. Jobbing bicycles and sundries.

Spaces 217-219—Noera Manufacturing Company, Waterbury, Conn. Lamps, pumps, oilers, toeclips, etc.

Space 222—Frank Mossberg Company, Attleboro, Mass. Mossberg bells and wrenches.

Spaces 223-224—Veeder Manufacturing Company, Hartford, Conn. Veeder cyclometers.

Spaces 225-226—Rose Manufacturing Company, Philadelphia. Lamps.

Spaces 227-228—Wyoma Coaster-Brake Company, Reading, Penn. Wyoma coaster-brakes.

Space 229—Columbia Lubricants Company, New York. Lubricants.

Space 230—Kokomo Rubber Company, Kokomo, Ind. Kokomo and Defender tires.

Space 231—Fleming Manufacturing Company, New York. Motors.

Space 232—Open.

Space 233—International Automobile and Vehicle Tire Company, New York. Tires.

Spaces 234-235—Open.

Space 236—Puritan Manufacturing Company, New York. Lamps.

Ferguson Joins Thomas Force.

Ernest L. Ferguson, for two years editor of the Motor Vehicle Review, has resigned his connection with that paper to accept the position of assistant to President Thomas, of the E. R. Thomas Motor Company, of Buffalo, N. Y., and a valuable assistant he should be, too. Although a Bostonian, Ferguson went West and grew up with the cycle trade. He was among the early ones in the business in Chicago and acquired a fund of practical experience that stood him in good purpose when he entered trade journalism. Well posted on all that pertains to motors and bicycles, full of faith in the motor bicycle, and with a pleasant personality and sincere manner, he should prove a distinct acquisition to the Thomas force.

Where to Find Weston.

The veteran, Frank F. Weston, than whom few men in the trade are better known, is now established on his own account at 95 Chamber's Street, this city. He will do a general jobbing business, and with the Eclipse, Snell and Kirk bicycles and Bundy lamps at his command, he should do well; indeed, the figures he is quoting should make him considerably sought after.

Goodman Strikes out for Himself.

Henry Goodman, who recently resigned the management of the Columbia branch in Portland, Oregon, is now in the East to attend the New York show. It is his intention to continue in business in Portland on his own account and to do not only a retail but a jobbing business. He has already made several desirable connections, and will establish others before leaving for home.

The Week's Incorporations.

The Thomas Cycle Company filed incorporation papers at Newark, N. J., last week. The capital is placed at \$400,000, divided into 4,000 shares of the value of \$100 each, and the object of the concern is the sale of bicycles, motors, automobiles and gas engines. F. L. C. Martin, of Newark, has ten shares; Edwin R. Thomas, of Buffalo, four shares, and Louis H. Bill, Henry Pokorney, Louis Ohnhaus and J. MacAdam, one share each.

The Boston Cycle and Sundry Company has succeeded the Boston Cycle Company. The new concern has been incorporated under Massachusetts laws with a capital of \$15,000. Its officers are M. A. Jackson, president; J. M. Linscott, treasurer, and G. A. Patten, secretary.

New York, N. Y.—Progressive Cycle and Automobile Supply Co., with \$6,000 capital, to deal in bicycles and automobiles. Directors: George Herrstadt, W. S. Hofstatter and Elias Pitzele, all of New York.

New York, N. Y.—Motor Vehicle Cycle Co., incorporated under laws of Delaware, with \$100,000 capital.

What Pratt and Stetson have.

D. S. Pratt and G. A. Stetson, of the Elastic Tip Company, Boston, will be among those in attendance at the New York Show. While no longer directly engaged in the bicycle business, they control the rights on several cycling accessories which they believe will interest the trade; among them are a roller brake, a spring handle bar, a coaster brake and a saddle clamp.

Carter takes up Automobiles.

That J. A. Carter has not been idle during the short time he has been out of harness was made plain by the organization last week of the Geneva Automobile and Manufacturing Co., of Geneva, Ohio, with \$100,000 capital. The factory of the old Geneva Cycle Co. has been purchased, and the new concern, with Carter at its head, will begin the manufacture of steam and gas automobiles. It is expected that within a month the factory will be running with 200 workmen.

Canfield's "Catchy" Calendar.

Whoever seeks a calendar that is at once artistic and full of life and color will find that issued by the Canfield Brake Company, of Corning, N. Y., more than worth the request that will bring one. An Oriental girl, and a fetching one, reclining against a huge Canfield coaster-brake is the subject matter of the picture. It is handled with delicacy and skill, and the fact that it is the handiwork of Mr. Canfield's artistic daughter gives it added value and interest.

What Bundy has Done.

"While there's a lot being said about the prizes that are being offered to dealers to push the sale of certain lamps," said Frank F. Weston, who is now looking after the interests of the Bundy lamp in this district, "what the Bundy people have done deserves just as much attention. They are offering no prizes, but they have reduced the price of their gas lamp from \$3.50 to \$2, and that speaks a great deal louder than words or prize offers."

RUDIMENTS OF THE MOTOCYCLE

The Location of its Principal Parts Shown at a Glance and Their Functions Briefly Described so That all may Understand.

COPYRIGHTED, JANUARY, 1901 BY THE GOODMAN CO.

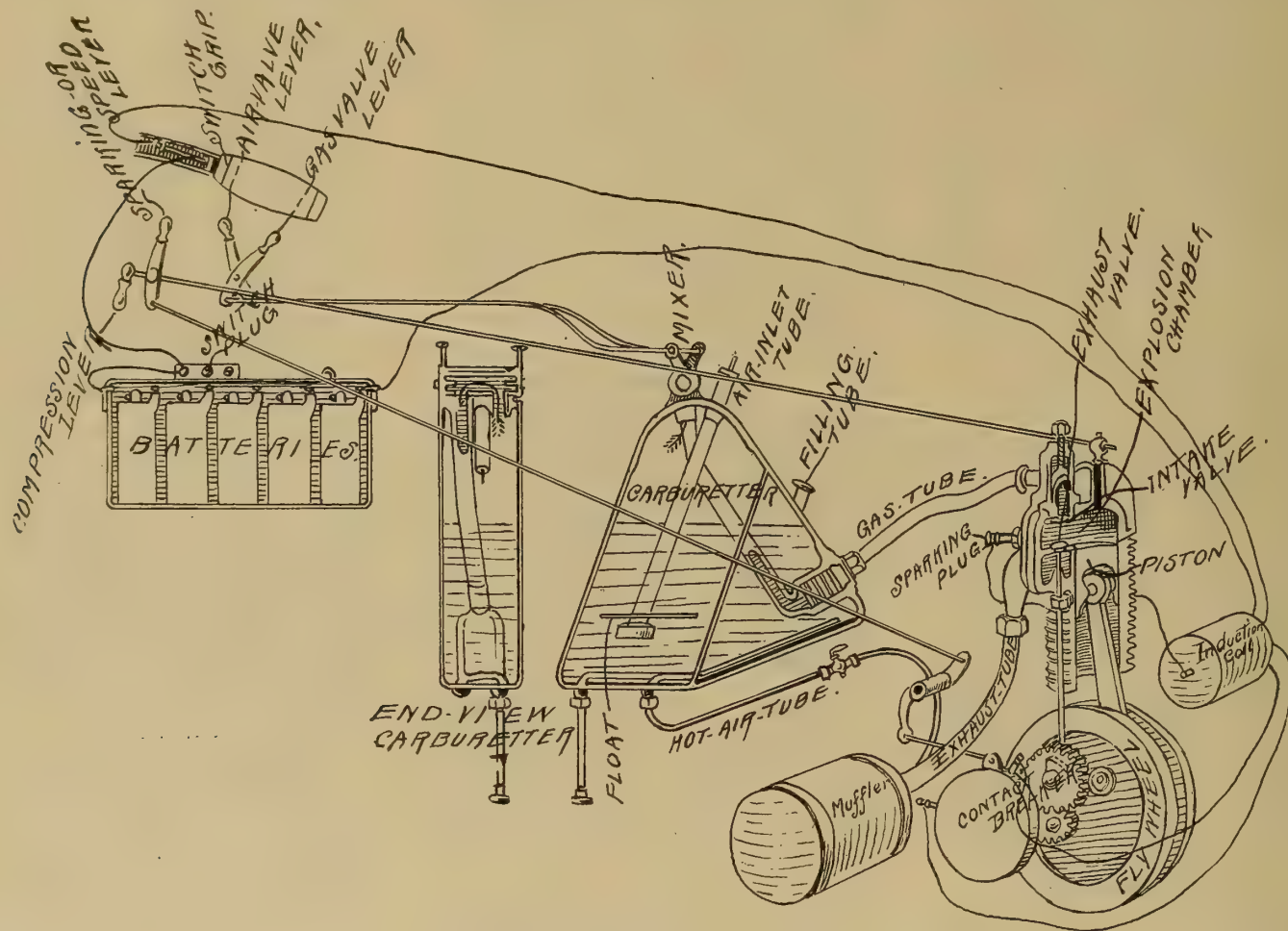
Although motorcycles are gradually attaining prominence and popularity, and though the noun rolls easily off the tongue, real knowledge of the machines is confined to exceedingly narrow limits.

More than one man has confessed that,

both exterior and interior views of the mechanism of a motor tricycle and will enable any one to quickly obtain a general idea that will serve to spread the fund of motorcycle information.

Without going deeply into confusing de-

the surface of the gasolene in the form of bubbles, which, bursting, form a gaseous vapor. This vapor enters THE MIXER through the aperture shown on the right-hand side of the end view of the carburetter. As it enters the mixer the vapor is too heav-



though he talked of "carburetters," "spark-ing plugs," "mufflers" and the like, he had but a vague or much mixed idea of their location on the machine and of the func-tions which they performed.

Others, anxious to learn, have expressed a desire for a primer—for an article giving the A B C's of the motorcycle and views of the machine showing its principal parts at a glance and that did not require continual reference to a key or index, which serves only to befuddle.

It is in response to this demand that The Bicycling World has adapted and presents the accompanying illustrations. They show

tails and technical terms, the functions of the several parts particularized are substan-tially as follows:

THE CARBURETTER (or gasolene tank, as it is sometimes called) serves the double purpose of carrying the supply of gasolene and creating a mixture of gas and air, and is half filled with gasolene through THE FILLING TUBE; THE FLOAT prevents splash-ing of the gasolene and indicates the depth of the fluid.

The mixture is made by the air entering the carburetter through THE AIR INLET TUBE, which, as will be seen, is submerged in the gasolene. The air, of course, comes to

ily charged with gas to be of service. A movement of the air lever admits more air into the mixer and creates a mixture of the proper proportions. This gas, as indicated by the arrow in the end of the carburetter, is then forced downward into THE GAS TUBE, which conveys the mixture to THE EXPLOSION CHAMBER, being admitted thereto, of course, by THE INTAKE VALVE.

The explosion is caused by an electric cur-rent, generated by THE BATTERY and con-veyed by the wires to the SPARKING PLUG, the current being broken and regu-lated by THE CONTACT BREAKER. The

current, being quite weak, is intensified by passing through THE INDUCTION COIL; the latter is a coil of several thousand yards of very fine wire wound around a metal core.

The spark explodes the gas in the explosion chamber, and this explosion forces down the piston, causing THE FLY WHEELS to revolve, thus supplying the power to drive the machine. THE PISTON, which is merely a metal drum, fitting snugly inside the cylinder, works up and down at a maximum

the grip or the removal of the switch plug at once breaks the current and the power ceases; just as the reverse operations have the opposite effect. The plug must be in place and the grip turned in the proper direction, or no power can be generated.

THE AIR LEVER regulates the quantity of air admitted to the mixer, while THE GAS LEVER regulates the supply of gas.

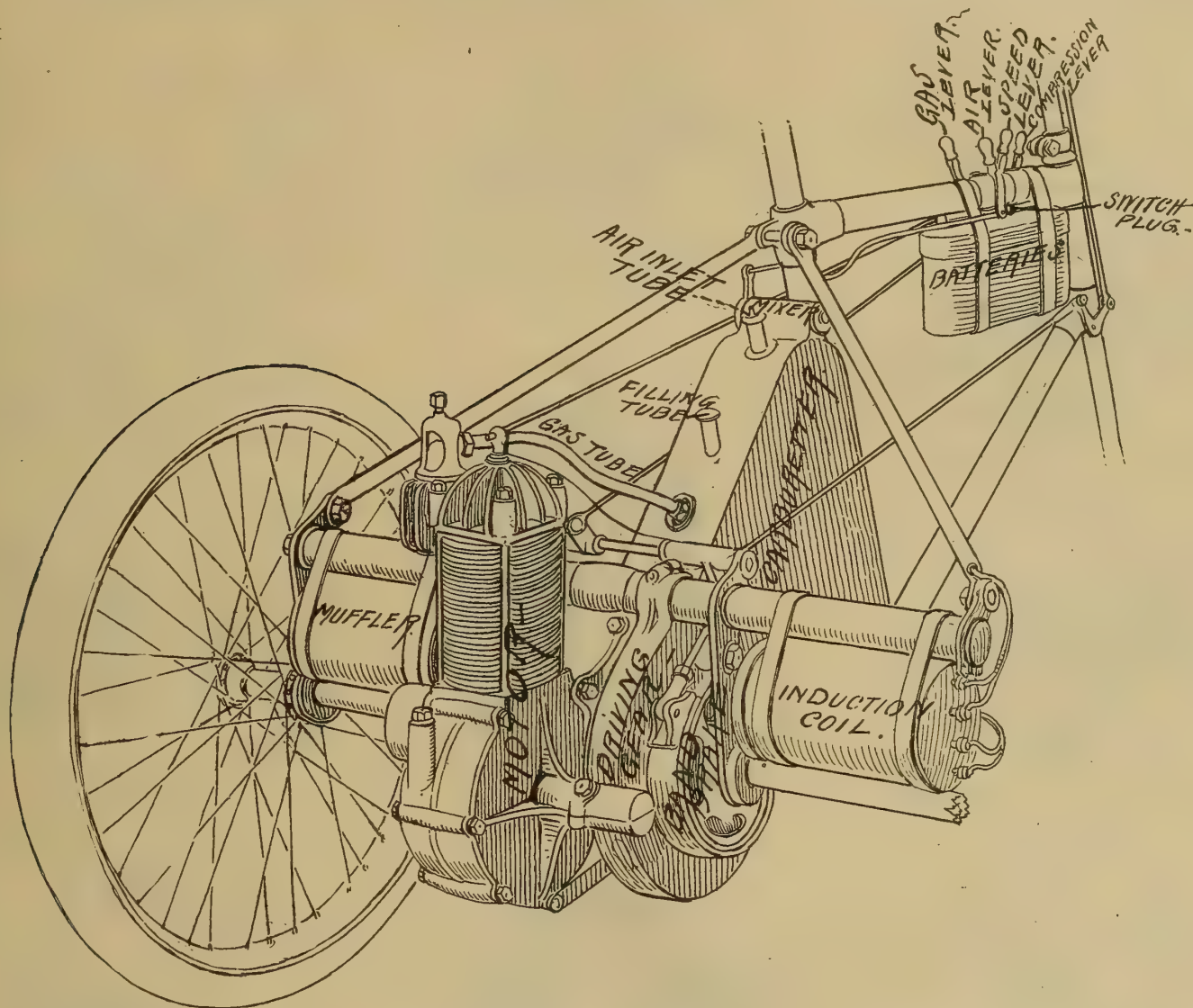
THE SPARKING or SPEED LEVER increases or decreases the number of sparks,

various parts and of their workings, no publication is richer in information than Wilson's "Motocycles and How to Manage Them."

Won't go Here.

While here frame changes—and especially changes to the front half of the diamond—are about the last thing that would be thought of, they are causing a pretty how-de-do on the other side of the water.

The "cross frame," which is making all the trouble, is being pushed by a number of



speed of 2,000 revolutions per minute.

Immediately after the explosion takes place, THE EXHAUST VALVE is opened automatically and the used gas passes out into THE EXHAUST TUBE and then into THE MUFFLER, which is merely a device for reducing the noise and permitting the gas to escape. A portion of this gas, en route to the muffler, is diverted to THE HOT AIR TUBE, which thus conveys necessary warmth to the gasoline in the carburetter.

THE SWITCH PLUG and THE SWITCH GRIP serve the twin purposes of making and breaking the electric current. A turn of

and, consequently, the number of explosions, and thus regulates the speed of the machine.

THE COMPRESSION LEVER opens and closes the chamber in which the compression of gas and explosions take place, and is kept closed when the full power of the motor is being used to drive the machine. When starting the machine, or running without the power—as downhill—the compression lever is kept open, thereby relieving the motor of the labor of unnecessarily compressing the mixture at each stroke of the piston.

For detailed views and descriptions of the

firms that are making a lot of capital out of their "progressiveness." Indeed, this appears to be the chief claim made in behalf of the new frame, the half-hearted assertions of the necessity for a strengthening of the forward part of the frame being put forth in a very perfunctory way.

In spite of this, however, rival makers have evidently taken the alarm. In order to avoid the stigma of old fogyishness they are hastening into print to say that they, too, will supply cross frames if desired, while they in the same breath condemn them unreservedly.

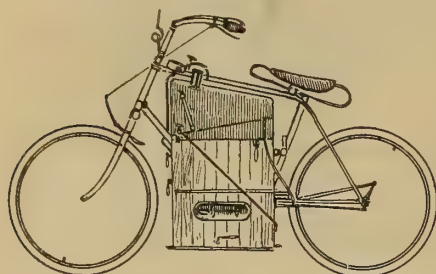
The matter will not create a ripple on the surface of the American trade sea. Indeed, it is noteworthy chiefly as emphasizing the almost unassailable position occupied by the present frame, which is truly standard.

THE MOVEMENT TOWARD MOTOR BICYCLES

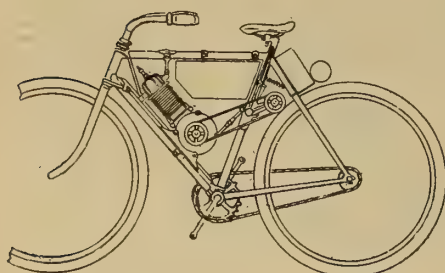
First Speck on the Sky Appeared in Massachusetts in 1868 — Slight Eruptions in '84 and '94 Lead up to Today's Widespread Interest—The Early Designs and Some Late Ones.

Until recent months it was supposed that the Copeland steam bicycle, which appeared in California in 1884, was the grand daddy of motor bicycles of to-day; next in line was placed the Pennington, of 1894, which, at

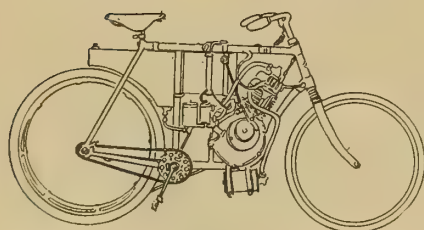
Austin, of Winthrop, Mass., produced a steam "boneshaker" which he made and used in 1868, thus leveling the claims of the Copeland machine. A velocipede, of vague origin and description and claimed to have



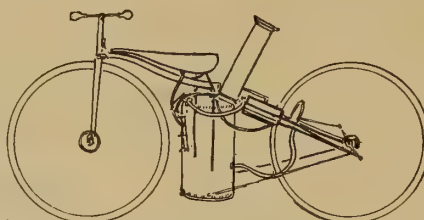
ROPER'S (STEAM) 1896.



THOMAS.



ORIENT.



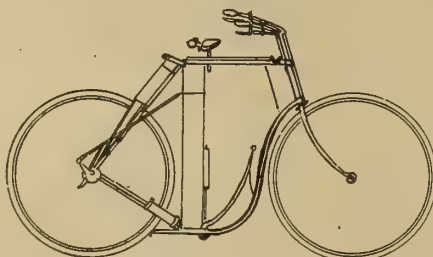
AUSTIN (STEAM) 1868.



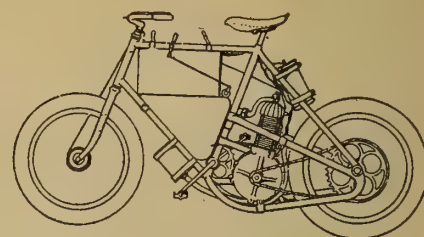
COPELAND, 1884.



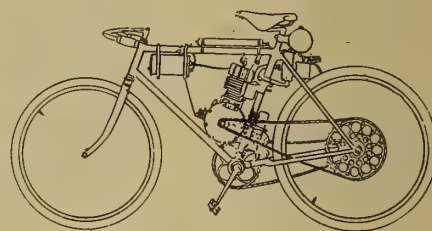
PENNINGTON, 1894.



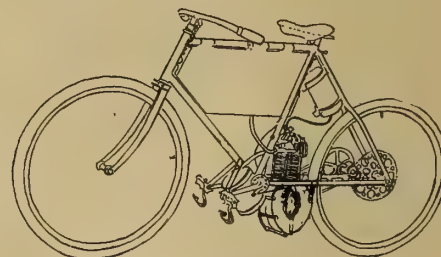
TWOMBLEY (ETHER) 1894.



REGAS.



MARSH.



EDMOND.

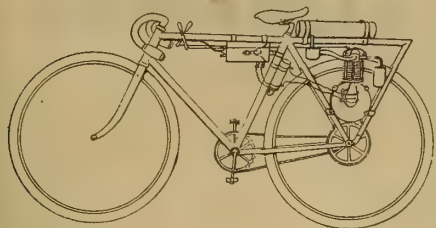
any rate, was the first motorcycle of the safety type, driven by an explosive motor, seen and sold in this country, although a bicycle "driven by expanding ether instead of water," was devised by Willard I Twombly, of Portland, Maine, was illustrated in the *Bicycling World* of August 3, 1894.

Within recent months, however, W. W.

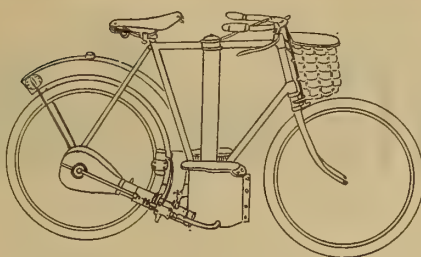
been built in 1876, was also recently unearthed in England. All of these early motorcycles are here shown.

France, closely followed by Germany, was first to make the motorcycle a practical and commercial success, but for the most part the foreigners have devoted themselves to the tricycle; it is in this country that the

motor bicycle is receiving the greatest attention. Almost every week brings a new design and its simplification and perfection is but a mere matter of time.

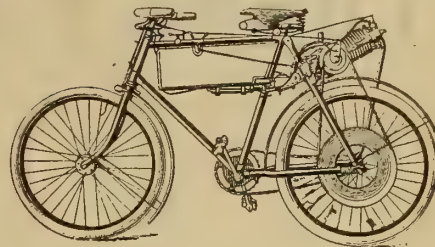


CLARK.

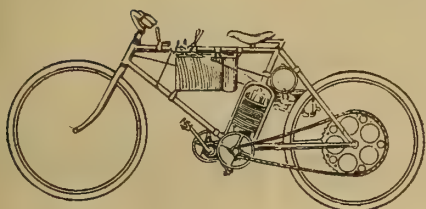


VOLTA (FRENCH) 1895.

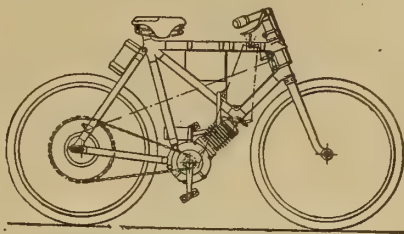
tered in the bicycle that will "level the hill and still the headwind," the twin terrors of the average cyclist.



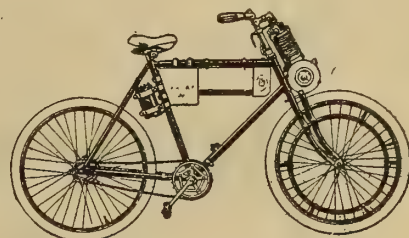
FLINOIS (FRENCH.)



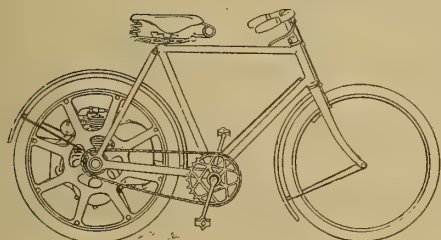
HOLLEY.



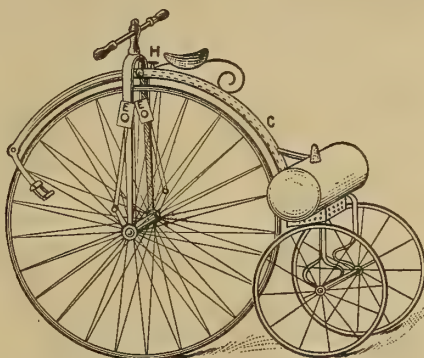
GIBSON (ENGLISH.)



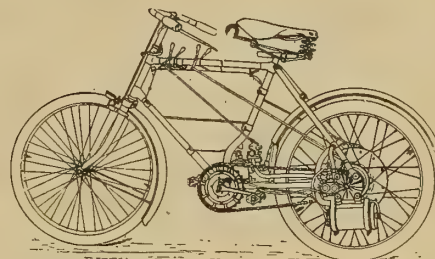
WERNER (FRENCH.)



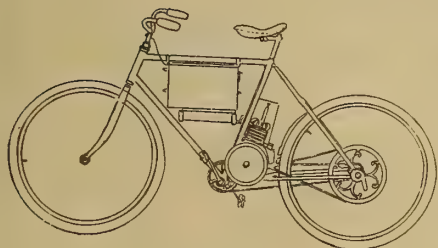
COMPACT (ENGLISH.)



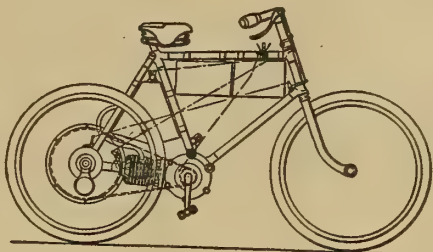
BUCKNELL VELOCIPEDE, (ENGLISH) 1876.



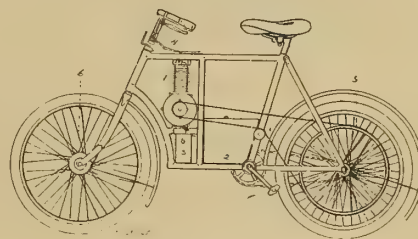
BUTIKOFER (GERMAN.)



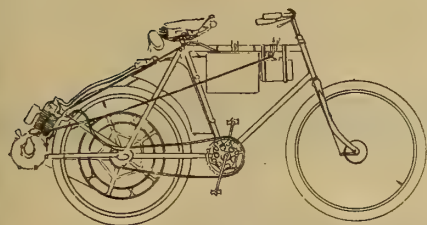
LEAR



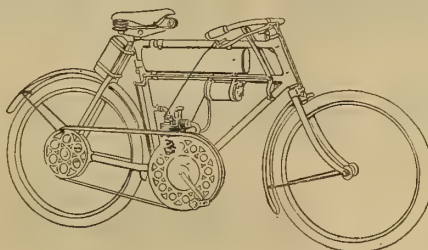
GIBSON (ENGLISH.)



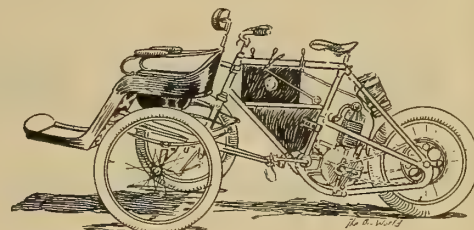
REPUBLIC (FRENCH.)



ANTHONY.



CHAPPELLE & CHEVEVALLIER, (FRENCH.)



REGAS.

Without recourse to the many "freaks," the accompanying illustrations serve to show the wide range of thought and inventive design that has evolved and is cen-

"Motocycles and How to Manage Them." The only book of its kind in existence. Price, 75 cents. For Sale by The Goodman Co.

FRAME PARTS AND COMPLEMENTS

“In sets ready to build.”

In frames all built ready to enamel.

In frames all enameled ready to assemble.

**EVERY PART MADE AND GUARANTEED IN ONE FACTORY
BY RESPONSIBLE MANUFACTURER.**

Hubs, Pedals, Crank Hangers,

Seat Posts, Chain Guards,

Flush Head Sets,

For $1\frac{3}{8}$ in. Head, 1 in. Stem.

FOR ONE INCH

Seat Post Clusters, Heads,

Eccentric Adjusters, Crowns,

Complete Sets and Many Styles.



ALL KINDS DRAWING AND STAMPING WORK.

SPECIAL FACILITIES FOR SCREW MACHINE PRODUCTS EVERY KIND AND DESCRIPTION.

JOHN R. KEIM, BUFFALO, N. Y., U. S. A.

ABOUT INSTALLMENTS

The Law which Obtains in England—Results About the Same as Here.

While the dealer who does an instalment business has his greatest trouble with purchasers who default in their payments through inability or disinclination to make them, and who are usually honest, he also has to contend occasionally with the dishonest kind.

In such cases the difficulty is to prove that the purchaser intends to resort to crookedness. Suspicion is not easily aroused, and even when it is the dealer finds it no easy task to take effective measures for his protection. It is distasteful to him to take back a machine unless it is very plain that he is in danger of losing it altogether, and when he does make up his mind to pursue this disagreeable course he is obliged to bring to bear convincing evidence of his debtor's intended dishonesty, before he can take any steps to protect himself.

Matters do not appear to be very much better in this respect on the other side of the water. An English writer dwelling upon this fact, says that when a person who has hired a thing suddenly does something which shows that he intends never to return it, whatever may happen—for example, when he sells it, or moves away, leaving no address

and after a long period he cannot be traced—he becomes guilty of a theft or "larceny" in the taking away of an article from the owner's control without his consent. It will be obvious to the merest tyro that on a hire-purchase transaction the article is taken away from the owner's premises with his full consent; therefore, according to the old law, there could be no larceny, and an action by the hirer after the event could not turn it into such.

An act of Parliament was passed in the year 1861 to meet this defect (and others in the criminal law), and now if a hirer fraudulently converts the property hired to his own use he is guilty of the offence known as "larceny by bailee." He must be remembered, however, that this offence is not the same as ordinary theft, where the accused has taken the property out of the owner's possession against his will. It is not so easily proven, and the same methods of getting back the stolen article are not, as we shall see, all open to the owner.

Where a hirer sells a machine he has thus hired there is very clear proof of his felonious intent, and no doubt is left to his resolution never to return the property to the owner; so that in such a case it is quite safe to prosecute him for the offence.

But where the hirer has not actually sold the machine, it may be possible for the circumstances to leave no doubt in the mind of the owner that there is dishonest intention, and yet not to justify a criminal prosecution,

and we need scarcely point out that if A prosecutes B unjustifiably, he may after B's acquittal be called upon to answer in a civil action by the latter, for damages, which damages may far exceed the value of any lost property.

Let us take the case of a man moving away with the hired machine and leaving no address. If it could be clearly shown that he intended never to see or communicate with the cycle agent again—or, for instance, by getting evidence of something he has said to that effect—a warrant for his arrest could at once be applied for. But in the absence of some evidence or circumstances, apart from the removal itself, pointing to felonious intention, it would not be safe to prosecute in such a case, but a time must be allowed to elapse sufficient to raise the presumption, and to rebut the suggestion which will doubtless be made by the accused that notwithstanding his removal his intention was to communicate with his creditor.

What amount of time should be allowed in such cases is not defined precisely by the law. It is a question to be decided by the particular circumstances each time.

Thames Increases its Capital.

The Thames Chain & Stamping Co., Norwich, Conn., has increased its capital from \$10,000 to \$25,000; 20 per cent of the increase has been paid in cash. The Thames people, it will be recalled, have recently undertaken a general sundry business, in addition to the manufacture of chains.

. . . Why the Morrow? . . .

Let the answer be in the words of others—in the words of a manufacturer as reported to us by disinterested and unquestionable authority:

"Why don't I save money by using a coaster-brake cheaper than the Morrow? Simply because the Morrow helps the sale of my bicycles. Too many people believe all coaster-brakes are Morrows and I'd have to do too much explaining and apologizing if I used any other, and life is too short and time and reputation too precious for that sort of thing."

Its fame is as secure as it is deserved and well won. The first in the world, the Morrow is still the foremost. The best, it is likewise the best known. There was never a better coaster-brake; there can be none. Why fool with so-called "just-as-goods"?

ECLIPSE MFG. CO., ELMIRA, N. Y.

N. Y. OFFICE, 105-107 CHAMBERS ST.

Cycle Show, Space 30.

Schrader Universal Valve.

(Trade Mark, registered April 30, 1895.)

NOTICE.

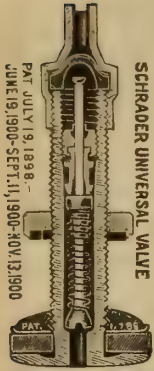
Manufacturers of Bicycles, Jobbers and Dealers:

In order to facilitate the obtaining of

PARTS of the Schrader Universal Valve,

I have concluded to sell parts only to the general trade.

Parts 99-1, 99-2, 99-3, 99-4, may be had from all the makers, or from A. SCHRADER'S SON. Price List and description of parts sent on application.



SIMPLE AND ABSOLUTELY AIR-TIGHT.

Manufactured by

A. SCHRADER'S SON

ESTABLISHED 1844.

**30 and 32 Rose St.,
New York, U. S. A.**



WE HAVE

A PROPOSITION ON TIRES

THAT IS LIKELY

TO MAKE ANY JOBBER OR DEALER

"FEEL GOOD."

SEE US

AT THE CYCLE SHOW, SPACE 233,

OR ADDRESS

INTERNATIONAL AUTOMOBILE AND VEHICLE TIRE CO.,

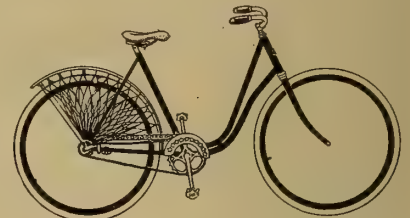
346 BROADWAY, NEW YORK.

EXPLORER BICYCLES. BUILT ON HONOR.

This is our sixth year in business, and we have prospered. We are making what we consider an elegant line of high grade wheels, and we pursue a live-and-let-live policy, working hand in hand with our patrons.

\$30.00.

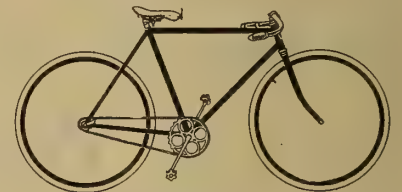
Our Light Roadsters, listing at \$30.00, in Men's and Ladies' Patterns, are well and honestly made. We use nothing but the best material throughout. Shelby Seamless Tubing, one-piece Hanger, drop forged Crown, Adjustable Bars, Kokomo Tires, Sager Saddles, and we enamel in either Crimson or Black.



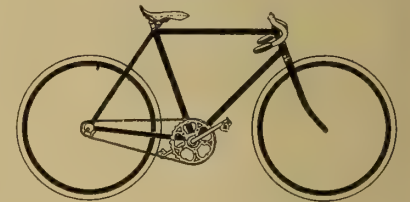
EXPLORER (LADIES) No. 30.

\$40.00.

Our Explorer Special at \$40.00 is a perfect beauty, so many of our agents tell us. Enameled in Orange, with an Olive Head. Extension Adjustable Bars, Troxel Saddle, one-piece Hanger, and choice of M. & W., Hartford or Goodrich Tires. This wheel is equipped with a Morrow Coaster Brake.



EXPLORER No. 30.



EXPLORER SPECIAL.

Any energetic dealer can make his living on this line alone. We have room for a few more good retail customers. Our discounts are such as afford the agent a good, clean, handsome profit. Drop us a line.

EMPIRE STATE CYCLE CO.,

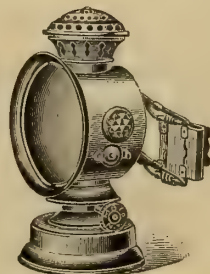
ADDISON, N. Y.

We Give No Chromos or Automobiles

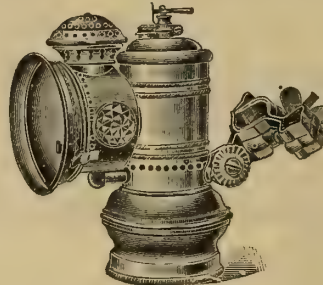
WITH OUR LAMPS;
WE PUT FULL VALUE INTO THE LAMPS THEMSELVES



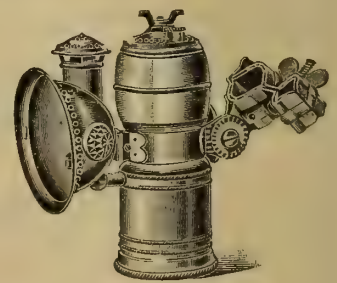
"QUEEN"—Oil.



"U. S."—Oil.



"BRILLIANT"—Gas.



"RADIANT"—Gas.

IF YOU WANT LAMPS OF THE SORT, WRITE FOR CATALOGUE AND PRICES.

MANHATTAN BRASS CO.,

332 E. 28th St., New York City.

REVERY OF A VETERAN

Recollections of Some of the Men and Things of Long Ago.

On the eve of another show, and this the first of the *Bicycling World's* two show numbers, how could an old-timer be reasonably expected to keep sheer away from reminiscence?

Why, the familiar heading of the paper alone is enough to start him. Others have come and gone, but the *Bicycling World* keeps up (or down) to date, even in its title heading. The performance is within the covers; but the promise of progress is in the very face the *Bicycling World* now puts on. Note the saturnization of the globe by an air tire belted around it, and here are outlined the "G. O. O.," the rear-driver, the still later motor bicycle and the little "kicker-box" which shoves things along—these all show the progress of the twenty-three years.

It is three-and-twenty years since the rider, on a "G. O. O." with a bow-front saddle spring and a rear-wheel tire brake, dragging the *American Bicycling Journal's* great scroll against the wind, yet making the small dog put his tongue out and putting sore distress on Daddy Time, who lagged behind on a boneshaker, rolled out of Devonshire street, the first cycle store (Boston, of course!) and thereafter reappeared as regularly as his expensiveness allowed. Thence, under the present name, to 40 Water, thence to old No. 8, north side of Pemberton Square, long ago devoured by modern Boston; thence, after various migrations, hither to the world's commercial hub to-be. The first store of that day survives only in Papa Weston, who still manages the annual Wheel Round the Hub, religiously observed. From 45 High, 87 Summer, 597 Washington, the still maintained place in Columbus avenue, to a high seat on Abraham's shoulder (to wit, the "A. B. C." of cycling)—the Pope Co. has gone. As for the rest—

But the blue pencil is hovering over, and I must gabble slow. And yet—just a moment! Pitman still cools him off, about this time of year, at the edge of Coney Island. Elliott Mason answer to rolcall, and so does H. B. Hart. But where is Wentworth Rollins, and, oh, where is Kol Kron the white-flannelled? The building on Washington Square went long ago, and where is a copy of that wondrous bushel of chaff, "X. M. Miles on a Bi.?"

The necrology is long; many have fallen by the way. Some—for aught I can prove per contra—are using up comets' tails in their carburetters as they flit among the constellations; peace to them, anyway, they being what we call dead, but surely they cannot have given up their mundane habit of keeping close up to the date. The cup has been inverted for one of the Big Three,

and another one has been commercially bowled out. What will Overman say, as he puts his steam wagon through its paces, when he hears of the Victor at the show at \$35? Time was when he used to announce that the fact that other makes were sold for less money "does not affect our product."

But it did, though. He fell victim to his dogged obstinacy, which tried to make conditions instead of conforming to them, and including his persistence in costly construction; witness his commercially absurd way of making a rear hub and sprocket in one piece out of the solid. He and I never got on together personally, yet I would never stint him recognition of the honest work he did, and the last thing he took up—the Baldwin sprocket—ought to be in general use to-day.

As to the mob who only a long five years ago rushed to become makers—the tanners and lumbermen and quarrymen, et al., who saw in bicycle-making a dead sure fortune, when no little town could keep its self-respect without starting or coaxing a bicycle factory—they have gone in a broad sweep, and I suspect that if it were possible to make an exact balance sheet the world over the footings would show more loss than gain in cycle-making, considered solely as an industry.

Most of the mob who rushed in late to divide supposed profits deserved no better fate. And so of callow inventors who have only lately begun to quit spending their substance on bicycle dreams. In the last decade nearly 250 patents have been taken out in this country on chainless driving alone, and it is almost enough to turn a mechanical stomach to note their folly, for not over a dozen have real value, and the majority are simply—no, complicatedly—frantic.

Gone are the garish lights, the blare of devices to catch attention, the lavish outlays, and—for such relief, thanks!—the souvenirs. So much prophecy I dare a week before the door opens. The space under the roof of this unmatched big Garden barrack swarms with silent ghosts. The Coventry "52-54s" that had a curfew rung on them for a time over in Brooklyn; the few Curtises who slipped a wheel into sacred Central Park to break the solemn law and make a case; the clubs and clubhouses and "runs"; the riding schools and they who awaited their turn there, till the cash drawer would not shut, so full was it; the almost endless file that swept along the paths and clustered at the parks, till all the world was a wheel and yet all the world was fierce to learn; the Newport colony and the Michaux Club; then the break and flight of the noble column of prices—the ghosts are much affected. A few lay finger to nose; the most wring their hands, and some wipe spectral tears on immaterial sleeves.

But float down and get a catalogue; though champagne be gone, there are still water and beer. But has not the whole thing begun with champagne and arrived at beer? Who cares? There's good money in the

amber bitter. I recall having said in my haste, like the Psalmist, that I expected to see bicycles thrown in with a pound of tea; not yet—but it is only a week since a man advertised to give 500 cameras to purchasers of a 25-cent box of dry plates! The bicycle has come to the hardpan, cut-nail, everyday basis of practical use. The gilded youth has turned it down, and the chap with aggressive clothes and pipe inteeeth and shovel on shoulder has it. But let us laugh; cut nails are substantial.

Bicyclus pedibus addidit alas. Just so; but don't read the last word alas!! This marvellous residuum of evolutionary mechanical construction still, as it did at first, adds the "alas"; and so long as mankind are born to go cum pedibus the bicycle will not die out of use. A better utility will supplant it; but it will hold till such comes.

JULIUS WILCOX.

Light on Lubrication.

The ordinary ball bearings throughout the motor tricycle, of course, merely require the same oil and attention that those on an ordinary cycle should have, says a rider, although the axle bearings should, I think, be oiled more often than they usually are, especially those warmed by the motor.

For the pinions in the aluminum box I find nothing better than pure flaked graphite, with occasionally a little oil or grease, but there is always a certain amount of oil working through from the engine, which in itself renders the powder into a paste. And I am sure that a stiff paste reduces wear and noise more than one which is more like a liquid, and it certainly is less likely to leak out and make a black mess of all the parts adjacent. The chain is best cleaned and lubricated with a stiff brush, vigorously worked into the links with paraffine and graphite.

Turned Tables in Court Suit.

Bicycle fought automobile in a case heard in the Union County Court, at Elizabeth, N. J., last week, and the former won out. A verdict for \$235 was returned against the Riker Motor Vehicle Company, in a suit for \$3,000 damages, which was brought by James Lenox, an insurance solicitor, of Elizabeth. While riding his bicycle one of the Riker company's exhibition automobiles hit his wheel, and he was violently thrown upon the sidewalk. Lenox was non-suited in the Elizabeth District Court some time ago.

Have no Assets.

Following the announcement several months ago of their embarrassment, Charles R. Zacharias and August B. Seighortnet, of the firm of Berrang & Zacharias, of Asbury Park, N. J., last week filed a voluntary petition setting forth that they owe \$13,000 and have no assets. Jacob C. Berrang, the remaining partner, filed a petition in bankruptcy a year ago.

It affords us pleasure to announce that the

Wolff-American, Regal and Holland

Bicycles will be on exhibition

AT THE SHOW.

A full line will be displayed at our exhibit, Spaces Nos. 82,
84 and 86, Madison Square Garden,

January 12th to 19th, 1901.

Dealers who will be unable to attend the "Show" should
address all communications relative to
agencies, etc., to

STEARNS BICYCLE AGENCY,

Distributors of Bicycles,

SYRACUSE, . . . N. Y.

TOLD ABOUT TANDEM

Part that Sound Construction Plays in their Running—Some Vagaries.

"Tandems are peculiar," remarked a veteran rider the other day, "and the more one rides them the more convinced he becomes of this fact.

"For example, a tandem can be driven faster than a single—provided two good riders are up—and frequently longer distances as well; but it takes an awful lot out of the riders, and once they get 'baked' they might as well give up all thought of riding either fast or far.

"I have ridden a tandem a great deal and have learned to know its whims and peculiarities. This being so, I never presume on my intimate acquaintance, knowing that any violation of the rules I have set myself will be visited with quick punishment. As long as I keep within the limitations my experience has taught me to observe, however, I am all right, and no better machine than a good tandem could possibly be desired.

"In the first place, construction counts for infinitely more in a tandem than it does in a single. If there is anything 'out' about such a machine it will be revealed with startling suddenness. A hard-running tandem is an abomination, while a poorly built one is a death trap. Either shortcoming, however, brings its own punishment, as it manifests itself whenever the machine is ridden.

"With a lady companion a trip on a tandem is full of curiosities. As far as the lady is concerned, it is all 'peaches and cream,' for she has a much easier time of it than she could on a single. The man, however, will have to work harder than he would on his single, although the fact that he can go farther and faster than if both were on singles is sufficient compensation for this.

"On a tandem it does not seem possible to ride as slowly as a lady would if mounted on a single. The effort is made to do so, of course, the man at least knowing that a decided economy will thereby be effected, but, try as he will, the pace will quicken. At first the effects are not felt, but long before the ride is over—provided it is one of any length—they manifest themselves very disagreeably.

"One learns on a tandem to reduce hill-climbing to a science. It is almost impossible to take a hill slowly. If the machine begins to drag at the bottom of the hill it is out of the question to try to get up it. But get under a fair headway and keep it up, and the trick is accomplished pretty easily.

"Another thing that is queer is the way a tandem behaves when the top of a hill is nearly reached. You may be 'all out,'

with a dozen yards or so of the hill yet to ascend, and if you did not know your tandem you would say that you could never make it. But if it has any 'way' on at all it will carry itself over the brow of the hill, with just the least little bit of assistance. Take it a little farther down, however—just a few yards—and you will instinctively know that the case is hopeless, and get off and walk.

"Riding a tandem alone gives one strange experiences, too. If a slow pace is maintained the machine will run almost as easily as a single. The trick is to just coax it along, humoring it as it were, and all will be well. But attempt to hurry, and the work will seem to be doubled or trebled. The harder you push the worse the machine will run, and it is only when you begin to coax it again that it behaves itself."

Dunlop Pays Dividends.

It is not at all strange that the Dunlop Tire Company should, in view of the result of the year's trading, come to the conclusion that it was not expedient to bring out a cheap tire next season; rather do they prefer to still further improve the quality of the present pattern. Presumably, the same high prices will continue to rule.

At the annual meeting of the Dunlop company, held in London just before Christmas, it was shown conclusively that in spite of the "slump" in the trade, the concern was still able to earn sufficient to pay dividends. To be sure, the 30 and 40 per cent dividends of the "boom" years cannot be repeated, yet 5 per cent, with generous additions to the surplus accounts, can hardly be found fault with by reasonable people.

The directors reported a disposable balance of \$1,370,000, after the following appropriations had been made: Interest on debentures, \$115,000; depreciations, \$14,400; rebate reserve account, \$50,000; added special reserve account, \$250,000; added patent reserve account, \$250,000; added general reserve account, \$250,000. The directors recommended payment of 5 per cent dividend on the preferred shares and 5 per cent on the ordinary shares, leaving \$844,000 to carry forward, less managing director's commission.

A suggestion was made that a committee should be appointed to bring in a reconstruction, scheme, but nothing came of it.

Discoveries in Rubber Compounding.

"Although the world at large does not know it and the cycle trade may not appreciate the fact," said a prominent rubber man the other day, "there have been processes of rubber compounding evolved and perfected in the last ten months that are doing for tires and other rubber goods what the Bessemer process did for steel and iron. I don't think I'm giving away a state secret when I tell you that in the Diamond factory at Akron they are using a discovery of the sort that can hardly fail to have a powerful influence on the price of tires."

WHAT NEWNESS MEANS

How it Reaches Into and Affects the Life of all Industries.

To the mind of the observant man there is much, very much more in those two words than would at first sight appear, says an exchange.

These are days of progress, and the man or firm that is not prepared to take part in the forward march must be content to get left.

It matters little what line we take. Can you fancy a successful tailor who does not at certain periods of the year call the attention of his patrons to something new, a typewriter in which model does not follow model; a sewing machine that is up-to-date for more than a couple of years; a milliner, a house furnisher, a toy merchant, or, indeed, any line or specialty to which the word "new" is not a trade gold mine?

Our amusements must, to be popular, embody "something new"; the tourist best enjoys his tour if he can see (to him) new places, having new interests; in fact, we do not at the moment call to mind any trade or profession save one (and what a state it is in) in which the "anything new" question can be ignored.

The phenomenal successes of the journalistic world are "new" departures, the striking successes in other lines are also new, no matter whether it be "tuppenny tubes" or a new route to somewhere or other, yet, on the face of all this the cycle trade, that youngest of all industries, fancies it can set this well defined law at defiance, and when by doing so it gets neglected its traders cry out in despair and say "all is over!"

Nothing of the sort, there is the same chance, or even a stronger, for the cycle trade as for any other trade if only it will recognize "truths." The introduction of innovations creates interest anew, then when this has been done those who wish an industry well, will endeavor to see that the interest once aroused is maintained, for so long as human nature remains what it is that trade is foredoomed to neglect which can only say to a novelty loving world, "We have nothing new, alas! nothing new."

England's Exports Still Shrinking.

Nothing happened in November to lighten England's gloom; the record of the month simply added to the loss of its cycle export trade. For the eleven months ending with November the total was only £492,603, as against £621,365 in 1899, and £881,466 in 1898.

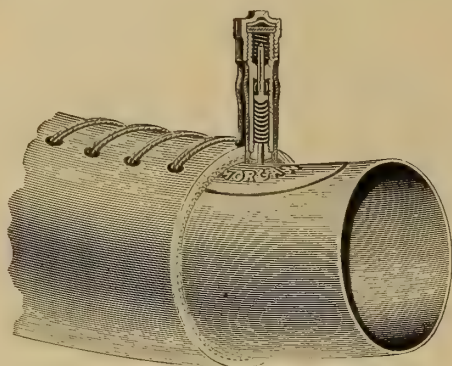
And Gates Ought to Know, too.

"The time for the organization of new industries has passed," says John W. Gates, the iron and steel magnate. "The time for the reconstruction of those that exist has arrived."

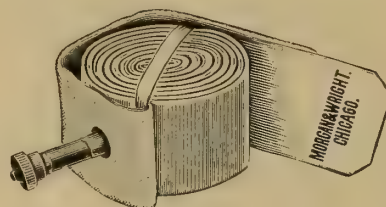
MORGAN & WRIGHT TIRES
ARE GOOD TIRES

MORGAN & WRIGHT TIRES
ARE GOOD TIRES

MORGAN & WRIGHT TIRES AND TUBES.



The well-known Morgan & Wright double-tube tire is the most economical and has given the greatest satisfaction of any bicycle tire put upon the market. The inner tube or air chamber can be easily pulled out and repaired and the casing vulcanized. It is made in all sizes and styles in smooth tread.



We furnish the Standard Inner Tube in No. 1 and No. 2 qualities only.



We also make a full line of pneumatic Automobile Tires, in 2 1-2 and 3 inches, for 26 to 36 inch wheels.



The above cut shows a sectional view of the new Morgan & Wright single-tube tire. The tire has a continuous air chamber, and the process used in vulcanizing this air chamber insures the rider against trouble on account of porous or imperfectly cured tires. Made in all sizes and diameters from 24 inches up, with smooth tread.

MORGAN & WRIGHT GUARANTEE.

We shall continue in 1901 our custom of repairing all tires of our manufacture free of charge, except when tires are old or worn out.

We shall replace defective parts when, in our judgment, the defect is from our fault. In no case will we replace when worn out in service or injured by accident.

Make your request direct to Morgan & Wright, Lake and May streets, Chicago, and not through the maker of your wheel.

Express charges on tires must be prepaid in every instance. If you ship by mail, register the package. If return by registered mail is desired, postage at the rate of 1 cent per ounce must come with request for repairs, and 8 cents besides for registry.

Do not send the wheel with the tire.

See that every package sent has your full address (name, town, county and state) securely fastened to the package.

**MORGAN & WRIGHT,
CHICAGO.**

NEW YORK BRANCH,
214-216 W. 47th Street.

BOSTON BRANCH,
80 Battery March Street,
Near Fort Hill Square.

MORGAN & WRIGHT TIRES
ARE GOOD TIRES

MORGAN & WRIGHT TIRES
ARE GOOD TIRES

REFLECTED THE FASHIONS

How the Old Crock was Changed with the Passing Seasons.

They were talking of the decadence of the once universal desire to make frequent changes of machines. The old fashion of trading-in every spring was referred to, and various comments were made on it, some regretful, others just the reverse.

"You fellows who were always wanting to buy a new machine were an ungrateful lot," remarked the Quartermaster. "You never kept a machine long enough to learn its good qualities, but parted with it, the companion of long and charming rides, as unconcernedly as if it were a stick or a stone. Just as it was getting to have some individuality you got rid of it and began all over again.

"Now, with me it was just the other way," he continued. "I have an affection for my old wheel, as well I may, when you recollect that it is of the '91 vintage. Yes, I still have the old stand-by"—this in response to a look of incredulity—"and it is good enough for me for years to come.

"There it stands, down in the wheelroom, and I'm not ashamed to trot it out when the occasion arises. It may not be quite up to date, lacks some of the 'refinements' you talk so much about, but it is good for plenty of service yet.

"You will recollect that when I bought it from you it had cushion tires. It came near having solids, for in '91 we did not know much about anything but solids. The cushion had just come in, and the wiseacres were much inclined to shake their heads dubiously over it. As for pneumatics, they were only for the young and foolish, and such people as you who were in the business.

"I never had cause to regret the cushion tires, however, although I used sometimes to wish that it had been possible to have had it shod with pneumatics, when I bought it, but that was later on, and when I got it, love and money both would hardly have availed to procure the air tire, they were so scarce. The cushions did very well, though, and all that season I had the laugh on the other fellows who had taken solid tired machines because one big concern damned cushions in their catalogue, or because they were afraid to take the fancied risk.

"During the first year, too, I had rather the best of the growing band of pneumatic riders. They had a lot of trouble, and the superiority of their tires, when they were all right, hardly made up for the walks and train rides, or weary hours spent by the roadside in the effort to patch them up.

"But they had their revenge the next year—'92—when practically everybody took to the air tire, in spite of its being still in a crude state. My cushions were all right, but they began to look rather lonely by the time the season drew to an end. The other boys were riding faster on their pneumatics, even on club runs, when the pace was fairly easy,

and it began to be harder for me to hold my own.

"When '93 rolled around, therefore, I had to join the procession, and either trade or have my machine changed over. I decided on the latter course, both because it was cheaper and because of my affection for the faithful old wheel. It was all right in every other respect, and with pneumatic tires on it I need not be ashamed of it anywhere.

"So I paid you some \$25, or \$30, to have new rims and tires put on it—steel rims and double tube cemented tires. The rims are there yet, but the tires long ago gave way to single tubes, or, as we called them then, 'hose pipes.' It was a good bit of money, of course, but as the solid tired machines had slumped to almost nothing in price even then, it was much cheaper than trading.

"Since then I haven't done anything to the old wheel, except to put a couple of pairs of new tires on it. I had a mind to change it over—'modernize' it, as they termed it—several times, but always gave up the idea.

"You wanted me to have the frame remodelled along about '95 or '96, you will remember. The tread was to be made narrower, the head lengthened, the curved seat post tube replaced by a straight one, the frame made higher, the handle bars narrowed, etc. I had almost decided to let you go ahead, but afterward I was glad I hadn't, for soon the fashion changed again and I would have been as much out of it as ever.

"It was then—in '97 or '98—that the 'proper caper' was to have a short head and frame, low crank hanger and big sprockets. I just escaped them, and congratulated myself a year or two later when I saw some of the fellows not as tall as myself on their ridiculous looking little stunted machines. No, I was lucky to escape that.

"No, the old machine is all right," and the Quartermaster displayed a smile of satisfaction, "and I guess I'll hold on to it for a while longer.

"Maybe I'll fit a motor to it next year, as I'm not so spry as I was, and the old crock won't look any different from some of the designs of motor bicycles I have seen in *The Bicycling World* during the past few months." And with this parting shot he began to prepare a fresh load for his pipe.

Acknowledge Their Defeat?

When some months ago the Wapshare Tube Company secured a verdict in the suit brought against them by the Dunlop Tire Company for infringement, the latter concern immediately took an appeal from the decision. Now the appeal has been dismissed at the request of the Dunlop Company, which, apparently, has decided to make the best of a bad bargain and refrain from further agitation of the subject. This backdown is the more noteworthy, as the Wapshare Company was the first tire concern to successfully fight the Dunlop Company's suits for infringement of detachable tires. But perhaps the Dunlop Company will now buy what it could not knock out in the courts.

CYCLE SHOW TRICKS

One of the Old Favorites that Kept Many Men on the Move.

"The cycle show is not as full of tricks as it used to be," remarked a veteran saddle man the other day. "Take the case of saddles: In the good, old days before we had cut our eyeteeth we all seemed to imagine that some great good would follow if we could but have our saddles fitted on the wheels displayed at the show. The fact that they were not a part of the regular equipment cut no figure. All we wanted was to have them attached to the wheels on parade.

"As a rule, the bicycle manufacturers were generous to a fault in this regard, and we had little or no trouble in attaining our purpose. The queer part of it, however, was that they were as generous to one saddle man as to the other; they played no favorites; as a result, saddles on the various wheels were sometimes changed as often as half a dozen times per day. At one of the shows I myself used up four cases during the week. It seemed that I could no sooner fix a saddle on a bicycle before one of my competitors would come along and remove it and attach his own. We kept ourselves busy following each other and doing this foolish sort of thing.

"It is different nowadays, although I dare say there are a few who still believe that in some mysterious way the fact that their equipment forms a part of the bicycles displayed will return to them in some form or other.

"The tire makers, the pedal makers and all the rest were as bad in this respect as the saddle men, and if any one ever kept in mind the equipment of a particular bicycle he must have been startled by the frequency of the changes. It was a silly sort of competition at best, and looking back at it, I wonder that a lot of full grown men could have engaged in such play."

Cause of Coryell's Elation.

Among the trade visitors to New York this week is George R. Coryell, secretary-treasurer of the Sherman Cycle Co., of Chicago. Mr. Coryell is showing the 1901 samples of the well known Manson and Sherman wheels, and was more than elated with the success with which his company had gauged the fancy of the trade in this section of the country. It was the idea of the Sherman Co. that Eastern riders were looking for a lighter, trappier wheel, with shorter wheel base, and their belief proves to have been founded on fact, for no sooner had the samples been caught sight of, than they were immediately shown marks of favor. The Sherman Co. are pursuing a very aggressive campaign, and expect to make a number of valuable connections in the East.

The Retail Record.**CHANGES.**

Dalton, Mass.—W. L. Tower, retired.
Camden, N. Y.—Fred. Osborne succeeds John Schott.

Muscatine, Ia.—Bond Bros. succeed Bond & Young.

Downs, Kan.—I. A. Lutz succeeds D. M. Dalay & Co.

Plantville, Conn.—G. W. Smith succeeds Frank Stow.

Inwood, Ia.—Albertson Bros. succeed Baker Bros.

Ebensburg, Pa.—Brown & Son succeed H. A. Shoemaker.

Washington, Ia.—A. J. Rankin succeeds Berdo & Rankin.

Fordyce, Ark.—Brown & Eakin succeed J. E. Sparks & Co.

Doniphan, Neb.—Hawk Bros. succeed Hawk, Lane & Co.

South Bend, Ind.—Wm. R. Wade succeeds Woodworth & Wade.

Seneca, Kan.—Winkler & Bauer succeed Winkler & Bateman.

Grundy Center, Ia.—E. H. Dood succeeds Dodd & Souers Bros.

Morrisville, N. J.—Louis Consolloy will remove to Langhorne, Pa.

Sandersville, Ga.—H. E. Cohen succeeds Sandersville Hardware Co.

Browning, Mo.—Calhoun & Harvey; J. B. Harvey sold his interest.

Keene, N. H.—The Wilkins Toy Company has added a repair shop.

Swanton, Vt.—Mayhew & Wild will remove to the new block on Lake street.

Worthington, Minn.—J. M. Shanahan succeeds J. D. & W. L. Humiston.

Milwaukee, Wis.—Diamond Cycle & Machine Co. succeed Bottrell Bros.

Minneapolis, Minn.—Northwestern Motor Vehicle Co. succeeds Wheeler Cycle Co.

Bridgeton, N. J.—E. L. Thomas, Sassafras street, is making alterations to his shop.

Plainfield, N. J.—Adolph Emery, removed from No. 430 Watchung avenue, to the Spencer Building, Somerset street.

Cambridge, Mass.—W. B. Churchill Company, removed from No. 1,900 Massachusetts avenue to the Whitney Block, Massachusetts avenue.

EMBARRASMENTS.

St. Paul, Minn.—Fred. C. Chase filed petition in bankruptcy, with \$804 liabilities and \$1,954.65 assets, all of the latter, however, being claimed as exempt.

FIRES.

Montreal, Can.—J. Martineau, 2413 St. Catherine street; loss about \$6,000.

Canada is Ready for Metric System.

It is said that the Canadian Parliament stands ready to follow suit whenever the United States adopts the metric system of weights and measures. There is a belief prevalent that the time is near when Congress will take the necessary action looking to this end, and the Canadian Minister of Internal Revenue, being favorable to the system, intends, if he can secure the consent of his colleagues in the Cabinet, to shortly introduce a measure for its adoption in Canada.

If Irish Alcohol is Used.

The "tickle me and I'll tickle you" theory could scarcely be carried farther than it is by an Irish paper, which looks askance at motor vehicles because neither they nor the gasoline used in them for fuel are Irish products, but brightens up at the suggestion that alcohol may ultimately be substituted for gasoline.

Having pointed out that alcohol has been proved to be cheaper than petrol our contemporary goes on to say that a great industry prevails in Germany, where, from potatoes, a cheap alcohol is made, which very often is used to adulterate the higher priced spirit produced from grain. The connoisseur who likes his "Irish" or "Scotch" pure would object to this; but the stomach of the motor car is not so delicate, and cheap alcohol can be consumed by it without harm. Ireland possesses many distilleries at work, and the ruins of a great many more. It seems very probable that if a demand sprang up for cheap alcohol for motorcycle and automobile purposes few countries should be better able to meet it than Ireland. The advantages are such as would recommend the new spirit to every motorist; the supply would be unfailing, it could be got in most towns, and the price would make it more economical to use than petrol.

But unfortunately, there are many Irish people who object to motor vehicles because, they say, such vehicles do not benefit the country to the same extent as horses would. They are made in England or France, and the oil comes from America or Russia. Hence The Times looks upon the utilization of alcohol as likely to remove some of the prejudice now existing against the advance of automobiles.

It may roughly be computed, continues our contemporary, that a motor vehicle consumes a gallon of spirit for every twenty miles travelled, and an enthusiastic driver will think nothing of doing at least 2,000 miles in a season. Hence he will consume about 100 gallons of spirit per annum.

Work this out for the total number of actual and prospective motorists in the United Kingdom and it will indicate a quantity of liquid well worth the efforts of Ireland to supply. They are able in Ireland to make whiskey cheaper and better than England because they have most of the raw materials nearer at hand, though this country has the coal. They should also be able to produce the cheap tractive spirit profitably, for in all probability the potato would be found the best vegetable to get the raw spirit from.

These reflections of an Irish authority are interesting, at least.

Work For The Other Grip.

An ingenious exhaust valve lifter and current breaker for motor tricycles has recently been brought out by a Birmingham, England, inventor. By twisting the right handle a quarter turn the current is switched off, while half a turn raises the valve and keeps it up until the handle is turned back again.

The Week's Patents.

664,766. Armored Pneumatic Tire. Albert H. Lewis, Midvale, Ohio, assignor by direct and mesne assignments of three-fourths to Samuel Brannan, Charles Valot and John A. Newport, Somerdale, Ohio. Filed Sept. 22, 1900. Serial No. 30,596. (No model.)

664,647. Vehicle Wheel. Howard Kinney, Passaic, N. J., and John G. Hankins, Richmond, Va. Filed Apr. 5, 1900. Serial No. 11,575. (No model.)

664,826. Bicycle. Henry C. Weeks, New York, N. Y. Filed Mar. 26, 1896. Renewed May 8, 1900. Serial No. 15,981. (No model.)

664,490. Support for Bicycles. Arthur McCollum, San Jose, Cal. Filed Dec. 18, 1899. Serial No. 740,818. (No model.)

Still Cheapening Aluminum.

With the ever increasing demand for aluminum suppliers are busily engaged upon seeking an alloy which, while retaining to a great extent the qualities of the pure metal, can be delivered at a very moderate price. Whereas in 1889 the price per kilogramme (2.2 pounds) was 56 francs, to-day the cost of 98 to 98½ per cent metal is only 3 francs 25 centimes, a truly extraordinary diminution in price. Now an aluminum of 90 per cent supplied at 2 francs per kilogramme, is to be placed on the market. Such, at least, is the announcement made relative to one of the leading firms of French suppliers. A visit to one of these Parisian coach builders, who make a specialty of aluminum bodies, affords an interesting lesson on the manner of working up the metal, for there one sees a hundred and one parts and dozens of different types of carriages, all constructed of an aluminum alloy.

Patents Don't Go With Purchase.

Many people are under the impression that by selling or buying a business the patent rights, trade marks and protected patterns go also over to the new firm without any further arrangement. German courts have recently decided that this is not the case, and that in every instance a special application has to be made to the Patent Office to transfer such rights, which are otherwise void or still belong to the party in whose name they were granted.

Buys a Gas Lamp Patent.

The Bradley & Hubbard Manufacturing Company, of Meriden, Conn., has bought from William A. Penfield, of the same place, his patent for an acetylene gas bicycle lamp. The merit of the idea is said to lie in the arrangement of the elastic filler cap.

Profit in German Tires.

It is estimated that the dividends of the Continental-Caoutchouc and Guttapercha Company, of Hanover, Germany, for the financial year ending December 31, 1900, will be 45 per cent; last year, 40 per cent was declared.

IT'S THE OLD, OLD STORY

OF PRICE AND QUALITY

Few will
deny the quality of the

ECLIPSE BICYCLES,

and

HERE ARE THE LIST
PRICES FOR 1901

Eclipse Roadster,	\$30
Eclipse Special,	\$40
Eclipse Racer,	\$50

and any dealer who knows our reputation for "doing the handsome" for all who handle our goods, will lose no time in obtaining our 1901 quotations. They are even more interesting than usual.

SEYMOUR MFG. CO.

F. F. WESTON, SALES AGENT,

99 Chambers St., New York City.

Full of Faith.

One of the most notable features of the discussions anent motor bicycles which are of such frequent occurrence in trade and other circles is the practical unanimity which prevails as to their future popularity. This is well illustrated by the remarks ascribed to a prominent tradesman who was asked his opinion of them.

The answer was: "You want to pin your faith to the motor bicycle. It is not coming into popularity with a jump, but it is surely coming and it will in a few years outnumber on the roads the big machines as surely as the bicycles now outnumber carriages—and for similar reasons. Few persons appreciate the advanced stage of development in motors that has been reached. The bicycle went through years of painful adolescence to reach its maturity. Both the bicycle and the motor had been perfected separately, or nearly perfected, and it needed only to find the best way of coupling them.

"You may not realize it, but this is a mechanical and an economical age. Now, consider as a mechanical proposition and as an economical one what the motor bicycle represents. You have in it the cheapest form of rapid transit over the highways that there is on the face of the world to-day. It is the simplest and most reliable mechanical proposition; it is the cheapest and most convenient one in the sphere of automobiles. That tells it all, and on these fundamental facts I base my faith."

Bicycle Spoke's Influence.

The bicycle spoke may appear to the average rider of but small importance as compared with the more obtrusive portions of the machine, says a contemporary. If, however, due consideration is given to the mechanical merits of this small factor in the comparative perfection of the modern bicycle, it will be found that its claims are both varied and important.

Int the first place, it has given to the world the principle of the tension wheel, in which the load is suspended by the spokes threaded through the portion of the rim, instead of being supported by those below the hub. It is this fact that allows cycle wheels to be made so light in comparison with those employed in older forms of vehicles in which the carried load is not proportionately heavier.

MANAGER'S POSITION wanted with first-class bicycle or automobile company. A I references and seven years' experience. Address "MANAGER," Bicycling World Office.



**SARTUS
BALL RETAINER**
(The Original)
BEST ANTI-FRICTION.

618 BROADWAY, NEW YORK.

ELFIN
BICYCLES

The First Distinct Models of Twentieth Century Juveniles

—will be on exhibition from January 12 to January 19, with our distributing agents at the

Cycle Show, New York.

They are the only Juveniles built for the child, having the Reversible Crank Bracket, and a unique chain adjustment. They are

Elfin
Bicycles,
Standard
Juveniles
Of the World

recognized as such by leading dealers and cycle experts. Note the adaptability of this wheel to the child. Secure the agency in your town. Send for our 1901 catalog.

Frazer & Jones Co.,
Makers,
Syracuse, N. Y.

KEATING

World's Lightest

World's Strongest

World's Speediest

BICYCLES

THE FAVORITE MODEL 90

With or Without the Curve.

Equipped with

The Keating Noiseless Double
Roller Chain.

THE MOTOR BICYCLE THAT
IS A MOTOR BICYCLE.

WEIGHT 75, lbs.

We want good agents' Write for
prices on above and our
cheaper grades.

Keating Wheel and Automobile Co.,

MIDDLETOWN, CONN.

All About Carburetters.

Of the score or more of carburetters now in use, all are assignable to one or two well known and distinct classes. One of these, popularly dubbed the "bubbling" method, has been most in favor with motorcycle manufacturers, while the other, in which the gasoline is sprayed or atomized, has been more generally used on automobiles.

It has come about, however, that more extended use of the second method of carburetting, to say nothing of the great improvements that have taken place in its construction, has, apparently, demonstrated its superiority, at least for some purposes. As a result there is a perceptible movement in favor of the spraying or atomizing system, due to a belief that it is, on the whole, the preferable method. Nevertheless, the "bubbling" carburetter is still very much in evidence, as an examination of the average motorcycle will show.

The following translation of an exhaustive article which appeared in *Le Chauffeur* sets forth in an admirably judicial manner the functions and merits of each type.

The carburetter is the gas factory of the petroleum motor, the gas being manufactured on the spot in a simple apparatus of reduced dimensions, either by direct contact of the air with the oil, or by intimate mixture of the air with the sprayed oil.

All the known systems are included in one of these categories: (1) carburetters à barbotage (bubbling), so called because the air bubbles up through the liquid from below, or (2) carburetters with atomizers and mechanical distributors.

A few motors use lamp petroleum; then the carburetter is complicated enough. Most of our present motors use petroleum essence or gasoline, which requires only simple apparatus, diminishes the interruptions in the ignitions, and leaves but little residue.

Essence and lamp petroleum are, as known, derived from the same product, crude petroleum, a viscid liquid, brown, inclining more or less to green, in color, of penetrating odor and having a density varying from 700° to 900°.

In refining the crude petroleum naphthas these are successively obtained:

1. Between 0° and 150°, naphthas or petroleum essence (gasoline, kerosene, etc.).
2. Between 150° and 270°, lamp or ordinary petroleum.
3. Residues, heavy oils, asphalt, lubricating oils, vaselines, tar, and finally coke, if the operation is carried far enough.

Our essence, or liquid hydro-carbon, comes, therefore, under the first head. Still, it is necessary to rectify it, to purify it by means of sulphuric acid and soda, so as to obtain a very clear product, of pleasant odor, marking from 680° to 700°, of which a few drops, placed in the hollow of the hand, will rapidly evaporate without leaving a residue. This essence presents, however, a double inferiority to lamp petroleum. It is dearer in

price, and its manipulation, by reason of its great volatility, is not free from danger.

In the gasoline motor it is necessary to provide an explosive mixture by producing a rich gas, composed of air saturated with the vapor of the gasoline, and then mingle this hydro-carburetted air with nine or ten volumes of pure air; whence the special intake of the air furnished to the carburetter. For putting the carburetter in operation the displacement of the piston in the cylinder is sufficient.

The carburetter à barbotage is much the most simple. The air is carburetted by passing through a layer of the liquid essence, or by contact with the surfaces soaked with essence by capillary action. To promote the evaporation in cold weather the essence is slightly heated, oftenest by a circulation of part of the exhaust. The richness of the mixture, of course, diminishes according to the rate of the evaporation, the most volatile portion passing away first. So, the bottom of the carburetter becomes foul from an accumulation of useless oil and sediment formed by the dust drawn in with the air and should be often cleaned. It is preferable to employ carburetters à barbotage with constant level. If the gas does not traverse an equal thickness of the liquid it is not enriched in a uniform manner.

The carburetters Benz, Dion-Bouton, Aster, etc., are of this system, as well as the carburetters Decauville and Papillon, which make use of a wick to facilitate the evaporation. Most of them are familiar to our readers.

Developing Horse Power.

How puny appear the utmost efforts of man when compared with the mechanical forces he calls to his aid! Let us take a pound of what we will call average coal, containing, say, 10,000 heat units, says a writer in Cassell's. This would be somewhat smaller in size than a man's fist.

A pound of this coal, if expended in mechanical work, would give us 236 horsepower. Imagine at the time of the Pharaohs two long lines of men extending over half a mile all pulling steadily at the command of the task master at a great rope to raise some huge obelisk, and as you see them sweating, tugging and straining think again of this small lump of coal, in which nature has placed an equal amount of power.

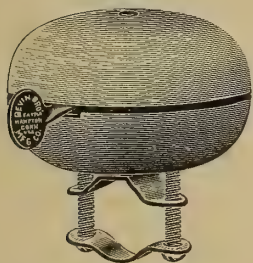
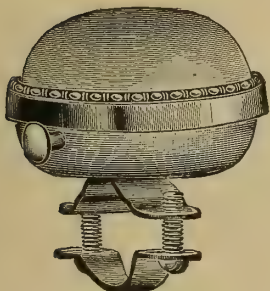
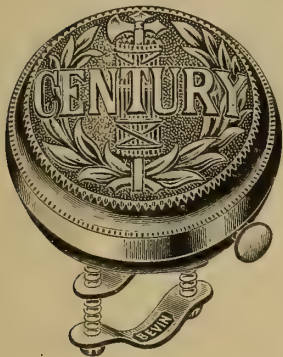
An exceptionally strong man has been known to do one-half horsepower of work as his mightiest effort, but two and a half minutes' work at this rate exhausts his muscular force. Let us suppose 100 such men putting forth such extreme effort at rope or crank or crowbar; as they fall back, red faced and puffing, to catch their breaths we might imagine this little black lump saying to them: "I can do as much as your whole company, and then can stand it for fully two minutes longer before I am exhausted!"

OUR SHOW-

ing of bells, lamp brackets, toe clips,
trouser guards and the like

IS SO ATTRACTIVE

in price, quality, appearance and variety that there are few in the trade whom we have not pleased or who we cannot please if given the opportunity.



Have YOU obtained catalog and quotations?

BEVIN BROS. MFG. CO., EAST HAMPTON, CONN.

(Business founded 1832.)

Saddles Like Shoes.

Trying a new saddle is very much like trying a new shoe—there is very little comfort in either until they have been “broken in.” Shrewd dealers who recognized this fact in the past scored over their fellows by insisting on a rider sticking to a saddle until it had become set to his form.

It made very little difference what the saddle was or how closely it resembled the one it was intended to replace. In fact, it might be the very same model, turned out by the same maker, and to all appearances as like the old one as one pea could be to another; but the rider always found a difference, and one almost always in favor of the old one. This newness or strangeness would pass off in time, but in no other way could the new saddle be made to seem comfortable.

Of late there has not been as much experimenting with saddles. Buyers are usually satisfied to suspend judgment until they have had an opportunity to learn by actual use whether a saddle would be comfortable or was likely to become so in the course of time.

In the same way experienced riders are slow to make changes in their saddles. They hold to the old ones even after they have become disreputable looking and wellnigh past service. They dread to “break in” a new saddle, even although they know that the inconvenience they suffer will be but temporary.

Why it Costs so Much.

Few riders have any idea of the great care which is exercised in the growth and preparation of the Sea Island cotton which is used—or alleged to be used—in making up the fabric for their tires.

The careful selection of seed for planting is inseparably connected with the successful culture of Sea Island cotton. It is only by careful selection that the staple, yield, etc., can be kept up to any high standard.

The best prepared Sea Island cotton, that commands the highest price in the market, is sorted by hand. A person is given 150 pounds of seed cotton as a day's task, which is thoroughly overhauled, and all specks, stained locks, fragments of leaf, etc., are picked out. Where less care is practised this is done by two hands, who examine the cotton as it passes into the gin, and two others behind the gin, who pick out cracked seed, motes, etc., as the lint issues from the gin.

Newport's One-sided Law.

Ulysses Grant Scott, the first man in aristocratic Newport, R. I., to own a motor bicycle, an Orient, fell afoul of the police before he had it two days; he was “gathered in” for exceeding the speed limit. The fact that Millionaire Vanderbilt has been permitted to scorch his automobile over the same roads without interference is giving the newspapers an opportunity to give the Newport police a well merited castigation.

They Sell Saddle Clamps too.

In addition to their saddles the Newark (N. J.) Cycle Specialty Co. are in position to supply saddle clamps to the trade at large; their prices are reputed uncommonly attractive, too.

“Pshaw!”

This from the manufacturer and dividend hunter when high gears and long cranks are advocated. They interfere with the “Standard model”—so profitable to the maker.

The machine must be lengthened and strengthened, the crank bracket raised and crank graduated in size to quarter inches.

It's cheaper to say “pshaw” than to do all this for you.

Which explains why our agents and the

TAILORED



FOR
1901

will have so little competition. They are made to save trade—not dividends.

WALTHAM MFG. CO.

WALTHAM, MASS.

BILLIONS IN IT

**Though the Industrial Boom is Deflating
1900's Record was Stupendous.**

The "boom" period for the formation of industrial corporations has passed, but that the movement has not yet expended itself is attested by the fact that during 1900 nearly \$2,500,000,000 was added to the capitalization of such companies.

During the year just ended there were companies formed having a capitalization of \$2,415,423,500. For the month of December the record of companies formed shows the total to be \$197,873,500, which is a considerable increase over the last few months of the year.

The most prominent feature of the industrial movement for the month is the fact that New Jersey once more assumes the lead in the list of the charter granting States.

The corporation experts state that not even in the boom period of 1899 were there so many desirable companies formed as there were in the closing days of the nineteenth century.

The following is the list by months:

January	\$203,750,000
February	124,350,000
March	502,900,000
April	325,250,000
May	261,600,000
June	166,200,000
July	185,700,000
August	99,900,000
September	90,700,000
October	108,350,000
November	148,850,000
December	197,873,500

Total for 1900.....\$2,415,423,500

The prosperous condition of the country is well brought out by the figures of the different States. There is an absence of the many wildcat schemes which characterized the industrial movement of 1898 and 1899. All the corporations are conservatively capitalized whether they are large or small, and it is noticeable that the small companies are many time more numerous than they were a year ago.

The following is the list by States:

New Jersey.....	\$63,600,000
West Virginia.....	40,200,000
Colorado.....	20,950,000
New York.....	13,525,000
Maine.....	8,000,000
Delaware.....	6,700,000
Virginia.....	5,000,000
California.....	2,500,000
New Jersey's small companies...	26,398,500
Miscellaneous States.....	11,000,000

Total.....\$197,873,500

In New Jersey there were companies formed having a capital of over \$90,000,000 when the figures of the small companies are added to those having a capital of \$1,000,000 or over. This amount compares very favorably with the months in the early part of the year. The most important company formed in that State during the month was the International Crude Rubber Co., with a capital of \$30,000,000.

Here's an Aluminum Solder.

Among the difficulties encountered in working with aluminum one of the most serious was an inability to solder or braze this curious metal. On this account manufacturers of aluminum rims—which were at one time put forth to cope with the wood rim, then just beginning to come into extensive use—had much difficulty in making an effective joint. The usual method employed was to bring the two ends of the rim together and rivet a short section to them on the inside.

A Brooklyn man, McAdams by name, claims to have invented a thoroughly efficient and reliable solder that could be readily applied by the metal worker with extraordinary means at his disposal. This "long felt want" has at length been supplied, according to McAdams, who claims that his solder fulfills all the conditions necessary for the purpose of making a strong, neat and durable joint not only between two pieces of aluminum, but between aluminum and any other metal, such as copper, brass, tin, lead or zinc.

Specimens of work done by the solder invented by McAdams tend to support the claims made for it. The joints are of neat appearance, and are so strong that the sheet metal itself tears apart before the joint is broken. Of course, the test of time has not yet been applied, but the inventor states confidently that the solder will hold as long as the metal to which it is applied lasts. It is of the exact color of aluminum, and is guaranteed not to discolor by time.

The solder, the manufacturer is careful to state, does not flow into a seam or joint, but must be put there. It contains no lead, tin, bismuth, aluminum or phosphorus. Three grades of the solder are made: No. 1, melting at 430 degrees F., for very thin articles; No. 2, melting at 550 degrees F., the best of the three for general use; No. 3, melting at 610 degrees F., the strongest of them all.

[Overman Plant was Overtaxed.

Trustee H. H. Bowman, of the Overman Wheel Co., has won his fight for an abatement of the taxes levied on the old Victor plant at Chicopee Falls, Mass., and as a result a considerable sum will be saved to the creditors of the embarrassed concern.

Last week E. P. Kendrick filed his report as special commissioner in the case. The Overman company petitioned for an abatement of the taxes assessed against it for the years 1898 and 1899, alleging that the Chicopee assessors had largely overvalued the plant and machinery.

The report of the commissioners is favorable to the company's contention, and he finds that the fair cash value of the Overman plant and property in 1898 was \$273,500, while the assessors' valuation for that year was \$301,750. He finds the fair cash value of the property for 1899 to have been \$392,600, while the assessors' valuation for that year was \$426,350. According to these figures, the commissioner finds that the property was overvalued \$28,200 in 1898 and \$33,750 in 1899.

HOW TERMS STICK

**Things That Are Not What Their Names
Imply—Two Examples.**

Changes in nomenclature are made slowly and reluctantly, if at all. A name once given to an article sticks long after the material has undergone change.

There is sandpaper, for example, which is still thus styled, although it is no longer sandpaper at all. Some fellow originally glued sand upon paper and used it for rubbing down paint, for smoothing surfaces of wood and such work as that. Sandpaper as first used was about as good an example of a true abrasive, for rubbing or wearing away a surface, as could well be thought of. The grains of sand as found in nature are usually small pebbles, which have been produced, as large pebbles are, are constant rubbing of one against another under the impulse of the unresting waves.

Men using sandpaper naturally became impatient and dissatisfied with its work, and they found that by crushing glass or stones and sifting them to various grades of fineness and gluing these to the paper they could accomplish not only more work than previously, but also work different in character.

Sandpaper, which is now usually not sandpaper at all, but still must be called sandpaper evermore, is quite efficient in actually removing material by what may be called a cutting process, instead of merely wearing it away as at first. The word, however, if truly translated, still indicates the original and undeveloped and unsatisfactory agent, rather than the result of the later investigations and ingenuities.

The same thing has happened with the emery wheel, although it has not run through such a range of materials as in the case of sandpaper. The emery wheel, like the sandpaper, distinctly does not hint of the latest improvement in its line. Carborundum has been discovered, the process of its production has been developed, and it has been successfully and extensively applied to work with results that rather shame the true emery wheel; but the carborundum wheel still usually is in common mechanical parlance nothing but an emery wheel.

It is not easy to suggest how this delinquency of nomenclature can ever be avoided. People will still go on talking about sandpaper and emery wheels, when they really mean something different, and always also something better.

Where the Selling Season is Still On.

While the retail trade is profoundly quiet in most parts of the country, in the more favored southern section it is still quite active. The riding season is at its best, and dealers are taking advantage of the fact to give their wares the greatest possible publicity. R. V. Connerat, 346-348 Bull street, Savannah, Ga., is one of these enterprising dealers, and at the present time he is carrying in the daily papers separate advertisements of his bicycle and automobile businesses.

A FEW REASONS WHY THE REEVES IDEAL SPRING SEAT POST IS THE BEST.



INTERNAL EXPANDER.
SEPARATE PARTS AND ASSEMBLED POST.

IT IS

THE ONLY SPRING POST

Having an Internal, Expanding Device to secure itself in a Solid Cluster Seat Mast.

THE ONLY SPRING POST

Having the Spring Adjustment where the Spring can be adjusted to suit Weight of Rider without removing Post from the Seat Mast.

THE ONLY SPRING POST

Having no Roller Bearings, no Ball Bearings, no Loose Gibs, no Turrets, no Wear Adjustments, no Unsightly Devices simply to Talk About and get Out of Order.

THE ONLY SPRING POST

Which does not need any of the above attachments. It is Perfect in Action and impossible to Bind or Stick; never Wears Out, and is absolutely Non-oscillatory and Noiseless.

THE ONLY SPRING POST

That can produce Testimonials from people who have used same Post continually for past Five Years.

THE ONLY SPRING POST

Absolutely Guaranteed to be Perfect and against breakage for One Season.

THE ONLY SPRING POST

That will permit Saddle to rest close to top of Frame, thus adapting it to wheels of any height.

D. E. ORVIS & CO.,

Sole Agents for New York State,

71 E. Genesee St., BUFFALO, N. Y.

Hail to the Hule Plant!

No matter how rapidly the supply of rubber increases—under the impulse of the greater vigor exerted in its cultivation and gathering—the demand quite keeps pace with it. New uses are continually being found for rubber, while the old ones call for greater quantities of the precious commodity each year.

For these reasons the reports of gratifying success attending the attempts to find a new source of supply possess a great deal of interest. The story told by Consul Griffith, at Matamoros, Mexico, of the experiments with the hule plant is almost too good to be true, but if it is only partially true the plant will prove a most valuable acquisition.

The process was discovered about a year ago by a Mexican doctor residing in Sierra Mojado, says the Consul. This plant, which contains about 40 per cent of rubber, grows in the mountainous districts of Mexico, as well as in certain localities of Texas, Wyoming and Nebraska. It is a species of sagebrush, with small leaves, and grows to a height of about three feet.

A patent on the process has been taken out in the United States and Mexico, and a manufacturing plant has been located at San Luis Potosi. All the machinery for use in extracting the rubber has been invented and patented in both countries by the Monterey Foundry and Manufacturing Company, of Monterey. The principal steps in the manufacture are as follows:

There are special machines which feed the plant automatically into cutters; after it comes out of these it is carried by a bucket elevator and dumped into a steam jacket mixing tank, containing chemicals. The product then is allowed to run into hydraulic filter process, after which it is subjected to a hydrostatic pressure of 75 pounds to the square inch. It is then conveyed into settling tanks, where the gum, being heavier, settles to the bottom, leaving the chemicals and the residue to be drawn off.

The cost of production is slight. The principal difficulty to be overcome at the present time is the high rate of freight.

Australia Ready for Motor Bicycles.

"Are we ready for motor bicycles, or are some of the papers erecting a false idol?" asks the Cycle Age, which proceeds in eight or ten columns to diagnose a question which has been answered by millions already. Away out here, leastways, says the Australian Cyclist, there are hundreds ready, willing and waiting for a motor bicycle. Send the "idol" along!

The Cycle Age has raised a whirlwind, but very little dust. The Australian Cyclist assures the Cycling Age that long before a decade has spun its top there will be an all-right motor bicycle. We trust this assurance will quiet all the fears of our otherwise level-headed contemporary. Yes, a free wheel for down grades, and a sweet little bit of simply devised power to whip the machine up hill, will be the nearest approach to flying till we enter the wing age.

AT THE CYCLE SHOW

RELICS OF THE PAST CENTURY

WILL BE NUMEROUS.

They will be shamelessly marked with twentieth century name-plates, and the unwary will be caught and deceived.

BE WARY.

If, at the show, or afterward,

YOU SEEK GENUINE TWENTIETH CENTURY
BICYCLES AT TWENTIETH CENTURY
PRICES,

SEEK OUT THE



AT STAND No. 27.

They list at \$25, \$30 and \$35, and weight but 21 and 24 pounds, but

WE ASSERT

and are prepared to demonstrate that better bicycles are not offered anywhere at any price.

As the Days Lengthen.

With the lengthening of the days and the entrance upon the new year, the dealer feels that the tide is turning. In this year of grace his wits have been sharpened by the contemplation of the motorcycle and its probable influence on the coming season's business.

All About Motorcycles.

Post yourself on Motorcycles. Study up on the cycle of the future. "Motorcycles and How to Manage Them" will help you amazingly. The illustrations show the "insides" of the motor and the text explains. For sale by The Goodman Co., New York. Price, 75 cents.

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

Low Rates to the South.

Excursion tickets at reduced rates are now being sold by the Chicago, Milwaukee & St. Paul Railway to the prominent resorts in the South, including Jacksonville, Fla., Mobile, Ala., New Orleans, La., Savannah, Ga., El Paso, Tex., which are good for return passage at any time prior to June 1st, 1901. Information regarding rates, routes, time, etc., can be obtained on application to any coupon ticket agent of the Chicago, Milwaukee & St. Paul Railway. ***

Chicago and Cincinnati.

The Monon Route and C. H. & D. R'y run four trains daily from Chicago to Cincinnati. The day trains leave Dearborn Station, Chicago, at 8:30 A. M. and 11:45 A. M., and are equipped with elegant Parlor and Dining cars. The Night trains leave at 8:30 P. M. and 2:45 A. M. These trains are equipped with elegant sleepers and compartment cars, the sleepers on the latter train being ready for occupancy at 9:30 P. M. City Ticket Office, 232 S. Clark St., Chicago. ***

"Motorcycles and How to Manage Them." The only book of its kind in existence. Price, 75 cents. For Sale by The Goodman Co.

If we spent

\$1,000,000

in advertising some people would still use cheap and leaky oilers. Spend a few cents more and get a **"PERFECT"** Pocket Oiler. You will be well repaid.



25c.

CUSHMAN & DENISON, Mfrs.,
240-242 West 23d Street, New York.

Read what **Mr. J. G. Swindeman**, the prominent bicycle dealer of Toledo, Ohio, has to say about the

CUSHION FRAME

HYGIENIC WHEEL CO.,
220 Broadway, New York.

GENTLEMEN:—

The writer is so thoroughly elated with the sales of Cushion Frames that it will, perhaps, please you to share in the enjoyment. Your HYGIENIC CUSHION has certainly proved its merits and worth. I introduced the Cushion Frame in Toledo, and my efforts have been rewarded with a revival in wheeling without precedent. Many men and women, who had given up the bicycle, owing to discomfort, have, upon a trial ride only, given me their order, and are to-day enjoying comfort and ease in the daily use of their bicycles. The universal expression is "The right thing in the right place." Each sale brings me additional converts. I am confirmed in the belief that the Cushion Frame will eventually be the future wheel for general riding.

Yours very truly,

J. G. SWINDEMAN.

You will find the Cushion Frame bicycle to be a great trade winner, and your 1901 line will not be complete without it.

Write your manufacturers about them.

NOTE:—Cushions are attached only to HIGH GRADE BICYCLES.

Toledo, Ohio, Oct. 4, 1900.

YOU CAN'T TELL THE AGE OF A BICYCLE

by the teeth of its sprocket but you can tell its quality by the chain that runs over them.

If it's a Duckworth



you may be sure that the makers of the bicycle are not building on the Cheap John plan. If the bicycles you handle are not fitted with Duckworths, specify that chain when you order. If it is refused you, you will have a certain cue to the quality of the wheel.

In the Duckworth factory, it is not how cheap, nor how many, but how good. Write for catalogue and prices.

DUCKWORTH CHAIN & MANUFACTURING CO., Springfield, Mass.

Selling Agents, BRANDENBURG BROS. & WALLACE, New York and Chicago

Baltimore's Brave Nine.

Another step in the fight for motor vehicle rights in Druid Hill Park, Baltimore, Md., inaugurated by Frank I. Clark, the well known dealer and motocyclist, some time ago, was taken last week. On the preceding Monday nine automobilists were arrested for entering the park, and on Thursday they appeared before Justice White, at the Northern Police Station. They waived an examination and were released on their own recognizance with a personal bond of \$50 for trial before the Criminal Court January 4 or soon after.

The specific charge for which they were arrested was for violating Rule 33 of the park regulations, which forbids any automobile or wheeled vehicle operated by other than electricity or human power from entering the public parks. All of the machines of the gentlemen arrested were of the steam variety.

After the hearing Conway W. Sams, who

represented the accused, and his clients held a srot consultation as to the matter of pushing the case in the courts. The fight in the latter will be upon the ground that the rule is unreasonable, and also unjustly discriminates between the electric and steam automobiles. The former are allowed upon any of the roads of the park, and exercise the same privileges as horsemen and drivers. The steam automobilists claim that the exhaust from their machines does not frighten horses to such an extent as the Park Board alleged when the rule was passed. Like all other modern inventions in the vehicle line, the animals must become accustomed to them.

They Talked About Teeth.

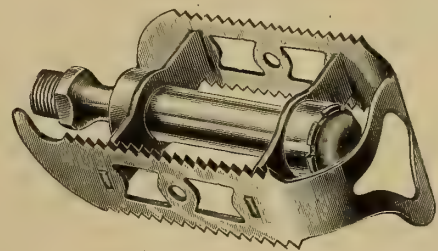
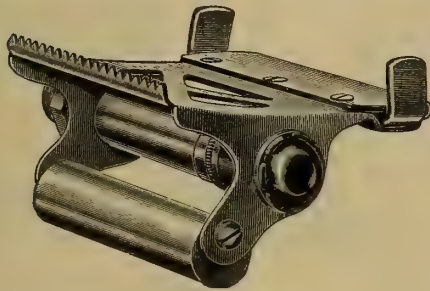
At a recent meeting of the Engineers' Club of Philadelphia James Christie read a paper upon the subject of "High Speed Toothed Gearing." With the aid of blue print illustrations he described four cases in which

toothed gearing had recently been used to transmit power with high pressure per unit of tooth contact at a high peripheral speed. Data were given for the sizes and speed of the wheels and the composition of the steel of which they were made. The advantages of the involute over the cycloidal curves for the profile of gear teeth were mentioned, and the desirability of adopting a uniform angle of obliquity for involute teeth was pointed out.

Wilfred Lewis followed with a communication upon "Interchangeable Gearing." The practical fallacy of the claim for superiority made by some writers on behalf of cycloidal over involute teeth was pointed out, and the question of the most desirable angle of obliquity to use for interchangeable involute teeth was fully discussed. Mr. Lewis recommended $22\frac{1}{2}$ degrees as a convenient angle to adopt and one that could be used for a pinion of 12 teeth without perceptible interference. He suggested that the club might initiate some action by which standard proportions for interchangeable gearing could be generally adopted.

**WE ARE RECEIVING VERY GRATIFYING ORDERS FOR THESE NO. 12 PEDALS,
ALSO FOR THE NO. 3 PEDALS AS ILLUSTRATED.**

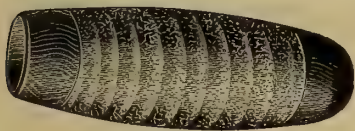
**WE HAVE THE GOODS READY TO DELIVER, AND THE PRICES ARE INTERESTING ENOUGH
TO SATISFY AND PERSUADE YOU TO BUY.**



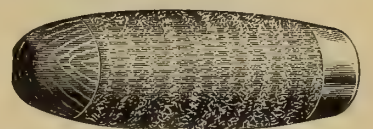
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REED & CURTIS MACHINE SCREW CO.,

WORCESTER, MASS.



GET THE BEST



Backed by our experience of former years we are now ready with the finest line of

**Indestructible Leather and Improved
Corkene Bicycle Grips**

ever offered to the trade.

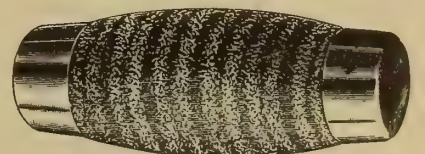
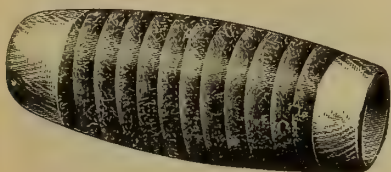
Write at once for prices, samples or electros.

GRAND RAPIDS BICYCLE GRIP CO.,

GRAND RAPIDS, MICH.

Eastern Representative, D. P. HARRIS,

101 Reade St., N. Y. City.



NEVERLEAK

STOPS LARGE PUNCTURES.

This is the only fluid that can be legally used in pneumatic tires. Suits now pending.

BUFFALO SPECIALTY MFG. CO.,
Buffalo, N. Y.

**THE LAKE SHORE ROUTE**

BETWEEN

Chicago and Milwaukee.

Frequent fast express trains at convenient hours.

All agents sell tickets via this popular route.

CHICAGO & NORTHWESTERN R. R.

TICKET OFFICES:

368 Washington St., Boston.
461 Broadway, New York City.
193 Clark St., Chicago.

The Best Advertising for the
Irish Trade is

THE IRISH CYCLIST

Specimen copy and advertising rates on
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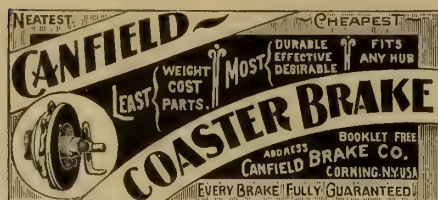
R. J. MECREDY & SON, Ltd., Proprietors,
49 Middle Abbey St., DUBLIN.

The Thorndike

Boylston St. and Park Square,

On the border of the most famous
Public Garden in America. **BOSTON.**

G. A. DAMON. J. L. DAMON. J. L. DAMON, Jr.



Through Train and Car Service in
effect April 29, 1900.

TWO FAST TRAINS

	"Chicago" Special Via Lake Shore.	"North Shore" Special Via Mich. Cen.
Lv. Boston	10.45 A.M.	2.00 P.M.
Due Albany	4.10 P.M.	7.35 "
" Syracuse	7.55 "	11.40 "
" Rochester	9.40 "	1.30 "
" Buffalo	11.40 "	
" Toledo	5.55 A.M.	
" Detroit		8.15 "
" Chicago	11.50 "	4.00 P.M.

The Finest Pullman Cars will be run on these trains.
Tickets and accommodations in sleeping cars for sale at City
Office, 366 Washington Street and at South Station.

A. S. HANSON, General Passenger Agent.

GOOD WORK GUARANTEED.

D. PATTINSON,
rear 48 Stanhope St., Boston.
[(Opposite former location.)]

EXPERT REPAIR WORK
OF ALL KINDS ON
BICYCLES AND AUTOMOBILES.
(Official L. A. W. Repair Shop.)

PATENTS GUARANTEED

Our fee returned if we fail. Particulars and our book "How to Secure a Patent" sent free. Patents secured through us are advertised for sale at our expense. Send sketch and description of your invention and we will tell you free whether or not it is patentable.

CHANDLEE & CHANDLEE
Registered Attorneys,
906 F Street, Northwest,
WASHINGTON, D. C.

Many have made fortunes from simple inventions.

SANGER ADJUSTABLE HANDLE BAR.

"THE ORIGINAL AND ONLY."

Patented October 10, 1899.

SANGER HANDLE BAR AND PLATING CO.,
Milwaukee, Wis.



Via Rockford, Freeport, Dubuque, Independence,
Waterloo, Webster City, Fort Dodge, Rockwell
City, Denison and Council Bluffs.

**DOUBLE DAILY SERVICE
TO OMAHA**

Buffet-library-smoking cars, sleeping cars,
free reclining chair cars, dining cars.
Tickets of agents of I. C. R. R. and connecting
lines.

A. H. HANSON, G. P. A., Chicago.

BOSTON & MAINE R.R.

**LOWEST RATES
FAST TRAIN SERVICE**

BETWEEN

Boston and Chicago,

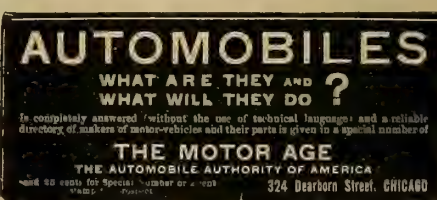
St. Louis, St. Paul,
Minneapolis

and all points West, Northwest, Southwest.

Pullman Parlor or Sleeping Cars on all
Through trains.

For tickets and information apply at any
principal ticket office of the company.

D. J. FLANDERS, Gen'l Pass. & Ticket Agt.
BOSTON.



The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., January 17, 1901.

No. 16

SET THE LIMIT

Detroit Dealers Decide not to Handle Bicycles Listing at Less Than \$25.

It will not be the fault of the Detroit Cycle Board of Trade if there are any bicycles listed at less than \$25 sold in the Michigan metropolis during the current year.

The Detroit organization has taken official action and placed itself on record to that effect.

The resolution recites that the members of the Board of Trade will offer for sale during the year 1901 no new bicycles catalogued at less than \$25.

The resolution was adopted with but one dissenting voice—the voice of the manager of a branch store who did not care to commit himself to the policy without authority from headquarters. It is believed, however, that the authority will be forthcoming and thus enable the Detroiters to present a united front.

Will Open in Portland, Ore.

Henry Goodman & Co. will hang out their sign in Portland, Oregon, on or about February 1. Mr. Goodman, who was formerly manager of the Columbia branch in that city, has been in the East for several weeks past, ordering the necessary stock for his establishment. The new firm will do both a jobbing and a retail trade. At retail the Pierce bicycle will be their leader, and in the open market, Leroy bicycles, which are among the eye openers of the present season. Full and fresh stocks of tires, sundries and everything else that goes to make up a complete store are now en route to Portland, and there is no doubt that Goodman & Co. will henceforth play a considerable part in the trade in the Pacific Northwest. Mr. Goodman, who originally hailed from Hartford, is well known throughout the East.

Control Ziegler Coaster-Brake Patent.

The Reed & Curtis Machine Screw Co., Worcester, Mass., has taken license under the E. E. Ziegler patent, and state that it grants them the sole right to make and sell that coaster-brake in this country. They will market the device as the No. 2 E. Z. coaster-brake.

Will Bid for Bicycle Trade.

The Standard Seamless Tube Co., of Ellwood, Pa., which was recently purchased by the powerful National Tube Co., will be continued under its old title, with general offices in Pittsburg. Under the new organization F. J. Hearne will be president, and W. H. Latshaw, secretary and treasurer.

The Standard people say that they are not only able to take care of all demands for bicycle tubing that come their way, but they expect to extend and increase this branch of their business, thus settling the doubt which existed as to their intentions. It will be recalled that one report had it that the National Tube Co. would not concern themselves with this branch of the trade.

Straus on Sixty-first Street.

The Straus Tire and Rubber Co. has entirely recovered from its recent visitation of fire, and its wheels are now moving at 351-353 East 61st Street, this city. The Straus people have abandoned bicycle tires, in which they were once no small factor, and now confine themselves to the production of solid rubber tires for carriages and other vehicles. They will continue, however, the manufacture of pedal rubbers and those other small but desirable cycle sundries with which they were identified.

Patee Absorbs Morris.

The Patee Cycle Co., which recently removed from Peoria, Ill., to Indianapolis, has absorbed the business of J. D. Morris, Rochester, N. Y., which will be removed to Indianapolis at once. Mr. Morris has perfected a gasoline motor which is well spoken of and which it is anticipated will be applied to the promised Patee motor bicycle. Morris himself will continue with Patee in Indianapolis.

Thompson Joins Carter.

A. Thompson, formerly superintendent of the A. B. C.'s automobile plant in Toledo, has resigned and joined J. A. Carter, in the latter's new Geneva (Ohio) Automobile and Mfg. Co. Thompson is said to be the owner of several important patents, which reports say the A. B. C. endeavored to purchase.

Chainless Coming From Utica.

The Wadman Cycle Co. has been organized in Utica, N. Y. They have something new in the form of chainless bicycles that will shortly see the light.

LAMP CHANGES HANDS

Briskness of Tin Can Trade Causes Breckenridge to Sell his Lamp Interests.

Quite unexpectedly, the National Cement and Rubber Mfg. Co., Toledo, Ohio, has projected itself into the lamp trade.

The projection came about through the purchase, this week, of the lamp business of the E. P. Breckenridge Co., of Toledo.

The retirement of the Breckenridge people from the lamp business is not, however, wholly surprising. It was but a mere offshoot of their immense tin can manufacture, which of itself has kept them more than occupied.

The National Co. is in good position to handle lamps in connection with their other goods, and should be able to cut a figure in that trade.

Additions to the Park Row Staff.

J. F. Hollingworth, former manager of the Electro Lamp Co., has been added to the staff of the Willis Park Row Bicycle Co., and is in charge of the sales department. H. M. De Silva, formerly the Southern and New England representative of the Delaware Rubber Co., has also been added to the Willis staff, and will shortly take to the road in the Willis interests.

How Goes the Call for Lamps.

"What is the proportionate demand for oil and gas lamps," said a representative of an Eastern lamp manufacturer, repeating the Bicycling World man's query. "In the West," he went on, "there has been no demand for the oil burner for two years. Out there it is all gas. In the East we sell, perhaps, 100 gas lamps to ten of the oil burners, and the demand for the latter dwindles almost daily."

What Willis did When Abroad.

When E. J. Willis went abroad recently, he did not do so solely to visit "the old folks at home." It develops that while in London, he arranged for his brother, Robert Willis, to represent him in England and on the Continent. Mr. Willis's London address is No. 79 Wells Street, Oxford Street, and through his brother on this side is in position to give American houses capable representation.

SEATTLE'S SCHEDULE

Dealers There the First to set Figures for the Next Season.

To take time by the forelock is so much the habit of Pacific Coast tradesmen—largely owing to the earlier opening of the season there—that the action of the Spokane (Wash.) Bicycle Repairers' Association last week, in forming their lines for the 1901 business, is not surprising.

The annual meeting of the association was held at the Imperial shop, and all the repairers of the city were represented, with the exception of Ware Brothers, and they will sign the list when it is published and passed around for signing. Harmony was the rule during the discussion of proposed changes, and everything went off smoothly and with remarkable dispatch.

W. H. Alexander was made chairman of the meeting, and the work which took three days last year was accomplished this year in one afternoon, and within the next week it is expected the list will be out and the agreement to charge the prices quoted thereon signed by the various repairers. The penalty consequent on cutting prices will be the same as it was last year, namely, a fine of \$5 if convicted by a two-thirds vote of the members of the association.

There were a number of changes made in last year's schedule and some additions were considered necessary. The changes, of which those referring to ball cups and cones are the most important, are as follows:

Rethreading wheel axle, including nut, 35 cents, instead of 50 cents; ball cups, up to and including one inch, \$1, instead of \$1.50; each additional quarter inch, instead of one-eighth inch, 25 cents; cleaning centre bearings and chain, 75 cents, instead of 50 cents; crating wheels, 75 cents, instead of 50 cents; cones, up to and including one inch, \$1, instead of \$1.50; each additional one-quarter inch, 25 cents; stock pin, made to order, \$1, instead of 50 cents; frame and forks, plain air drying, \$2, instead of \$1.50; chain guards, complete with lacing, \$2, instead of \$2.50; chain guards complete without braces, \$1, instead of \$1.50; brazing handle bar and fitting stem, \$1, instead of \$1.50; lacing and cementing tires, 35 cents, instead of 25 cents; M. & W. casings, \$2.50, instead of \$3; M. & W. casings put on, \$3, instead of \$2.50; for spokes put in, from two to five, instead of unlimited number, 15 cents; Dunlap inner tubes, \$1.50, instead of \$1; M. & W. casing and No. 1 tube, \$4, instead of \$4.50; M. & W. casing and No. 1 tube, put in, \$4.25, instead of \$4.75; M. & W. casing and No. 2 tube, \$3.75, instead of \$4.25; M. & W. casing with No. 2 tube, put in, \$4, instead of \$4.50.

The additions made in the list are as follows: Making pedal axle, \$1; pedal cup, 75 cents.

CHAINS.

Repairing one break in chain, 25 cents; re-

pairing each additional break at the same time, 15 cents; one new link put in, 25 cents; each additional link put in at the same time, 15 cents; taking out one link, 25 cents.

PUNCTURES.

Punctures in all ordinary laced tires, each inner tube, 50 cents; punctures in all ordinary clincher tires, 25 cents; punctures in all ordinary single tube tires, each plug, 25 cents; patching holes in lace casings, each 50 cents; patching hole in inner tube at the same time, extra, 25 cents; patching holes in clincher casings, each, 25 cents; for each additional patch on inner tube, 10 cents.

RIMS.

Rims put on, \$3; new rims, \$1; drilling rims, 25 cents.

SPOKES.

One spoke put in, 25 cents; for each additional spoke up to five, 15 cents.

TIRES.

Cementing on tires, each, 25 cents; G. & J. road tire, \$3.50; Morrow coaster brake put on, \$7.50.

Some of the articles listed last year for various reasons have been omitted this season. They are as follows: Chain bolt and nut, 15 cents; cementing on grips, 25 cents (grips are sold put on); single tube, Goodrich, \$4.50; Hartford No. 70, \$4; Hartford Cactus, \$3.75; M. & W. casing and No. 3 tube, \$4.

The reason for leaving out single tube tires is that there are so many of them that it was thought best to leave the price to the discretion of the separate dealers.

Why Tubeless Tires Failed.

It is not always the most promising inventions which make places for themselves, nor, conversely, the most unlikely ones which fail to "catch on." A proof of this is the fate that has overtaken the concerns pushing tubeless tires in England, the last and most important of all, the Fleuss, having thrown up the sponge.

When the tubeless tire was introduced the idea was favorably received by critics. The prospect held forth of repair from the inside was alluring, although experience proved that the advantage was more imaginary than real. Still, if the tubeless tire had been marketed in the state of perfection to which it has now been brought, it would probably have taken a firm hold upon the public fancy. The mistake was in marketing a new development of this description while it was in an experimental state.

A serious handicap of the tubeless tire was the price. It was naturally anticipated by the public that the absence of separate air chambers would mean a considerable saving in price, yet, as a matter of fact, the tubeless tire was more expensive to manufacture than the compound variety.

Fowler has Aspirations.

It is on the cards that Frank T. Fowler will enter the field for the Republican nomination for Mayor of Chicago. A formal announcement of his candidacy is expected within a few days.

ROADSIDE REPAIRS

Claims that the Practice has Fallen into Decay—The Counter Claims.

Pneumatic tires, the advantages and shortcomings of the various types, were under discussion. The conversation drifted around to the desirable features in a tire of to-day and the changes which had taken place of late years.

"But your tire is not as easy to repair by the roadside as the Blank," was urged against one particular type, "and that ought to weigh a great deal with riders."

"Rot!" was the terse reply of the tire salesman. "Nobody wants to repair tires by the roadside nowadays, or at least only an insignificant proportion of the riders. They won't take the trouble to do it, even if they have the necessary knowledge, skill and materials for making the repair; and it is very rarely that these indispensable prerequisites are at hand."

"Instead of repairing a puncture or other cause of deflation on the few occasions when anything of the kind happens," he went on, "they just start away for home."

"It's no use saying that this ought not to be done, that it will ruin the tire or cause other damage. That is true enough, but the fact remains that that is what the rider will do, talk or no talk. He won't repair and he won't walk—if he can avoid it."

"We became convinced of this long ago, and we think that the proper thing to do is to give the rider a tire that will not be ruined by such unwarranted usage. It is not very pleasant to reflect that your tire will suffer such a fate, but it is a fact, and the trade might as well make up its mind to acknowledge this and make the best of it."

"There's something in what you say," remarked the old dealer, "and it's a pity that it is so, notwithstanding the fact that there is still a considerable number of riders who make their own repairs on the road. But in the main what you say is true. The disinclination to 'tinker' with machines or tires has grown enormously."

"It was very different, though, in the old days," he continued. "Then riders were willing to study their machines and learn how to put things to rights when they went wrong. They did this for two reasons: One that mishaps were much more frequent and the ability to deal on the spot with them was almost necessary to the enjoyment of the pleasures of cycling. The other reason was that bicycles were new, comparatively speaking, and riders brought to them a fresh earnestness and zest that have now, unhappily, passed away. Present-day riders are blasé—they do not think it is 'worth while' to show the same eagerness they did when cycles were novelties."

"I remember distinctly when a knowledge—if only a superficial one—of tire repair was a part of the education of most riders. There

FRAME TESTS

Some Simple Experiments With Cardboard That Have Been Tried Abroad.

To all criticisms of the diamond frame the obvious reply will be made that it is far and away better than anything that the concerted united efforts of designers and makers could produce before it. Furthermore, the grand record it has made since it came into general use affords indisputable proof of its soundness.

It is beyond dispute, however, that if any part of the diamond frame is open to criticism it is the front half. It suffers from the shocks coming from the forks, falls a victim to crystallization and other ills, and has ten breakages to one falling to the lot of the rear half. It will hardly be held, therefore, that the forward portion of the frame is equal in strength to the rear triangle, and the only point open to discussion is whether it is strong enough for the purpose. The fact that it never gives trouble when the frame is properly constructed indicates that it is.

One of the simplest tests of the rigidity of any design of cycle frame, says an English writer, is to reproduce the pattern in strips of cardboard, metal or wood; let these be pinned together at the joints (a paper fastener answers all the requirements) and the various strains that are brought into operation in a driven cycle become obvious. Three strips of cardboard merely pinned together at the joints to form a triangle conclusively prove that this figure is sufficiently strong in itself to impart no strain whatever on the lugs. Add another strip so as to form a quadrangular figure, and it will at once be seen that any strength at all that can be imparted to it must be provided by the brazing or other method of jointing.

Test the ordinary cycle frame in this manner by building it up of strips of card, letting the head and front forks be represented by one strip. Hold the model by the fork ends the front fork end in one hand and the rear fork end in the other. If the rear forks be pushed forward it will be observed that the fore part of the frame has a tendency to collapse, this being overcome by the weight of the rider, because weight on the saddle gives the wheels a tendency to spread apart. This is shown if the diagonal or saddle pillar be disconnected at the top joint and be left free.

Weight on the saddle also causes the bracket to depress, and so carry the tube away from the saddle lug, but this is not readily shown, except in the case of a full-sized model under actual load. When the saddle pillar is disconnected, notice what an exceedingly weak frame is provided, yet in the early nineties many machines were made like this. If a blow be imparted to the front fork end such as would be given if a ma-

chine came into collision, notice how all four joints of the front carriages telescope, the effect being a crumpling of the tubes close to each lug.

Now take another strip of cardboard and bisect the quadrangular figure, so that two triangles are formed, and note how the frame is stiffened immediately. The extra strut can be taken either from the top of the head to the bracket or from the bottom of the head to the saddle lug. The cross frames at present bidding for popularity are specimens of this system of triangulation carried out in such a way as to give greater facilities for dismounting sideways than are given by the ordinary pattern.

To Replace Gasolene.

To the man who will devise a way to burn a heavier oil than gasolene in motors there is a rich reward waiting. Much thought has been devoted to the subject, but so far no one has been able to do more than report "progress."

It is reasonably certain, however, that the obstacles will eventually be overcome and kerosene as a fuel be substituted for the higher-priced, harder to procure and more dangerous gasolene. From across the water comes a report that an apparatus is almost ready to be placed on the market which will accomplish the desired purpose.

The apparatus is exceedingly simple, says the description, and has the great advantage that it can be readily fitted to most existing motors, not only large vehicles, but to engines of the De Dion and kindred types used upon motorcycles. The plan really consists of a perfect system of carburation, which has the effect that absolute combustion is assured, and there is no fear of deposits of a tarry nature being left in the cylinder. As an additional precaution against smell, which has hitherto been one of the chief objections to the employment of heavy oils, a special arrangement is fitted, in which any products not destroyed in the cylinder are finally got rid of.

It is said that an engine which has been built and has run for considerable distances with gasolene has been found to give 25 per cent more power under the heavy oil arrangement. As the cost is about one-half that of gasolene, and as oils of this class can be bought in nearly every village, this invention, providing that it does all that it is claimed, will do a great deal to advance the popularity of the motor vehicle.

Not for High Grades.

According to an English observer the cotter pin crank fastening "still reigns supreme, although it is a most unmechanical contrivance. The most that can be said in its favor is that the workshop operations involved in its production are the simplest possible: Two holes to be drilled in the end of the crank, a flat to be cut on the end of the axle, and a flat to be cut on the turned cotter pin. But surely high grade machines deserve something better than this," he adds.

was even then a class of cyclists too helpless or too indolent to go into such matters, but they formed only a small minority of the total.

"Tire repairing by amateurs was pursued sedulously, on the road as well as at the club and in the home. Why, I have even known riders wish for a puncture on the road just so they could test some new method of repair. Imagine such a wish nowadays! Then, too, a man could count with some reason on encountering amateur repairers who were only too glad to aid an unfortunate ignorant of or unskilful in tire repairing.

"Quick repairing was the theme of most discussions, and the contest between tire manufacturers was to produce the tire that could be repaired in the shortest order. Roadside repairs were particularly dwelt upon, and I remember a hanger gotten out by one concern which depicted a pleasing scene of this sort—a maiden fair reclining on a mossy bank while her faithful knight put the tire of her wheel to rights.

"Such scenes are never heard of now. Riders go along without a thought of making a repair if a puncture should occur, and ride on the rim if such a mishap should take place. When they get home they turn the tire over to a repairer and have him put it to rights.

"This being so, you are probably on the right tack in giving riders tires that won't be ruined by such usage. But it would be much better if you could persuade them to go back to the old way."

Olive Says Reports Lie.

D. B. Smith, of the Olive Wheel Company, Syracuse, N. Y., is among those in attendance at the Cycle Show. He is considerably worked up over reports that the Olive people would abandon the bicycle business after the current season had spent itself. Smith says the story is being circulated for a purpose, and that "lie" is not too strong a term to apply to it.

"Within the last six months," says Smith, "we have trebled our business. We have more specifications and orders in our factory at the present time than any other Syracuse manufacturer. We have orders for five carloads of wheels to go out within the next thirty days, and we are being successful in lining up and securing as our representatives the largest and most responsible dealers throughout the country. We are already making our plans, the drawings of which are now being made, for the enlargement of our plant this coming season, and our competitors who are circulating this statement will learn that in 1902 the Olive will be more in evidence than ever before."

Judgment Against Defunct Firm.

Transcript of a judgment from Chautauqua County was filed in this city last week against George R. Johnson and J. Arthur Holly for \$9,961, in favor of the Fenton Metallic Manufacturing Company, of Jamestown, N. Y.

The National never went back on me yet, and I don't expect it ever will. By that I mean that every man to whom I sell a National is satisfied with it, and in ninety-nine cases in a hundred, helps me make other sales. On top of that, my time is not spent in keeping customers good-natured, but in making subsequent sales, and that means additional profit. He is talking about the National Bicycle made in Bay City, Mich. That's a nice business to have, isn't it? It's easy to get if you go to work right.

Fisk Tires



Quality is what counts in these days of competition—the hey day of the cheap tire has passed.

One might just as consistently buy a coach horse and expect him to out-speed his neighbor's thoroughbred, as to buy cheap tires and expect high grade service.

People want value—full value—and the knowing ones are willing to pay for it, believing the best to be cheapest in the end.

That's why Fisk Tires are popular—and deservedly so.

They ride well and wear well and never give trouble.

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HAWKINS

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THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
"The Wheel" and the "American Cyclist."

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, JANUARY 17, 1901.

What the Show Promises.

For the first two days, the success of the Cycle Show was in the balance. Saturday night is always a "paper night," but even at that, the attendance was lighter than at the previous shows. Monday it was decidedly slim, not only in the evening but during the afternoon hours when visiting buyers are expected.

Visions of a week's "frost" were pictured and a "frost" was freely prophesied, but Tuesday turned the scale.

If Tuesday's record is upheld throughout the rest of the week, there will be no cause for excuses or apologies.

It yet too early to measure the volume of business likely to be transacted, but at this time it seems that the bulk of the buying is of sundries and accessories, rather than of bicycles themselves.

There seems no doubt, however, that bicycles also will feel the stimulating effect of the Show. Cushion frames are in the very air, to use a popular expression, and the cushion frame bicycle seems likely to obtain

the lion's share of the stimulation. The chainless bicycle is also rising higher in favor, while the motor bicycle is doing as well as can be expected. It is new and strange to the average visitor, but the Show is proving a valuable educational medium and the talk and interest created cannot but bring orders in its train.

Regarding Replacements.

It has been the custom in the past to discount the fact that a certain amount of business is reasonably to be expected in consequence of the discarding or wearing out of old machines. In fact, the tendency has been to overestimate sales due to this cause. The result was a disappointment at the failure of such expectations to materialize. Sales expected to be made were not made, and another note of dissatisfaction was struck.

Warned by past experience of the fallacy of such expectations, the trade has become pessimistic. When an increase of business from this source actually comes, it is said, it will be time enough to take cognizance of it.

When it does put in an appearance, therefore, it will be more apt to be appreciated. The welcome accorded it will be proportioned to its unexpectedness.

Judged solely by the length of time many machines have been in service, the coming season should be selected for their replacement.

In the case of the people who still devote much time to cycling, or whose machines are in constant use for business purposes, such replacement is extremely likely to take place.

Business of this character is almost certain to fall to the share of reputable concerns.

For the Health of the Trade.

To all concerned in the health and well being of the trade we earnestly commend the communication of Hughes, Wolf & Miller, of Terre Haute, Ind., published on another page.

The letter was addressed to the cycle manufacturers whose wheels the firm handles, and by the former it has been printed and given considerable circulation. In this way it has become public property. Even after elimination of several praise passages it is impossible for us to reproduce the communication without giving considerable prominence and gratuitous advertising to the bicycle in question. The letter is so wholesome, so instructive and so interesting, however, that, all other considerations

aside, it deserves all the circulation that can be given it. The experience it relates is of immense value in the lessons that it teaches and the moral it conveys.

Not by any means is all the goodness and newness in bicycles centred in the particular bicycle referred to. There are comparatively few high grades which may not be sold and dealt with in the manner detailed by the Indiana firm, which is, after all, only the manner dictated by common sense and real salesmanship.

The Indians recognize that price is the bugbear of the trade, but they meet the scarecrow as it should be met. It does not frighten them. They fight it in the right way and with the right weapon, quality, wielded in the right way. They do not depend upon mere mouthings to prove their assertions; they take the wheel apart and clinch their statements by actual demonstrations, point by point. How many other dealers attempt anything of the sort? It used to be the caper, we well know, but, alas! it is a caper now more honored in the breach than in the observance. To learn that it is still in vogue anywhere is almost as agreeably surprising as is the Terre Haute firm's avowal that "price never bothers them," and their appreciation that it is "not so all important as most salesmen think."

Hear them further: "While it is perhaps easier to sell cheap bicycles, the work and trouble comes afterward. We would rather spend the time showing the man what a high grade is and have him go away satisfied and stay satisfied than to sell him a cheap bicycle easily and then have him coming around regularly with his troubles and complaints. Our time is not spent in keeping customers good natured, but in making subsequent sales, and that, aside from the saving of annoyance, means additional profit."

Was ever better business sense expressed in fewer words?

And there is as much sense and truth, or more, if it is possible, in the firm's concluding remark: "There's more money in good stuff at the end of the season, and then's when we figure up our profits, anyway."

The remark is almost as epigrammatic as it is sound. It deserves lodgement in the brain of all who have bicycles for sale.

Terre Haute is not a large city; there are very many as large and much larger in the United States, and what the firm of Hughes, Wolf & Miller have done others can do if they will but try, for, let it be borne in

mind that while the last three years have not been rated good years, that firm increased their sales each successive year, proving conclusively the soundness of their methods.

That firm has handled the bicycle business as it should be handled. Their letter has the right ring to it; the clear exposition of their selling methods that it gives should prove an inspiration to their fellows everywhere. Without intending it, they have performed a service that should aid in the up-rating of the trade and in quickening the senses of the dealer.

Their brave words and inspiring example merit—and we have heard none braver or more inspiring for many a day—all the publicity that can be given them. They make for the betterment of the industry, and in this belief we are pleased to be able to further their circulation. May they obtain the emulation they so richly merit!

Shows, Past and Present.

Just ten years ago this month the first regular, representative cycle show in this country was held at Philadelphia.

So successful was it in every way that it at once became an institution, and since then every year except one—1898—there has been at least one show worthy of the name of national. Dating from 1894 New York has been the sole venue, Philadelphia having after that year abdicated in favor of the metropolis, confining herself henceforth to local shows.

In 1891, as at the present time, the need of a stimulant to cycling was felt. The safety had finally triumphed over the high wheel. It is small wonder that the pastime and trade lagged painfully on account of its imperfections. Chaos reigned as far as design was concerned, weights were still something enormous and the solid tire put the finishing touch to a machine which had little that was really inviting about it.

The fillip came in the shape of new tires. At the show under discussion the cushion and the air tire both made their bow. The former was considerably in the van, being essentially a compromise and meeting with popular favor on that account. Knowledge of the pneumatic tire was slight, and even that bred a strong distrust of it and its workings.

But a better acquaintance with it proved that in this case, at least, first impressions were not best. In spite of the fact that the cushion tire was a vast improvement over the solid one type, even coming within

hailing distance of the pneumatic, and attended with few drawbacks, the same year that heralded its coming marked its end as a factor in the trade.

Thenceforth—that is, from the show of 1892—the pneumatic tire completely dominated the situation. Solids disappeared completely, while the decline of the cushion was almost as rapid as its rise. There was a wide divergence of opinion as to types, and it was not until several years later that fastenings and fabrics and other mooted points settled down into something like order.

The stimulant given to the trade by the pneumatic tire helped, of course, by reductions in weight and other improvements in construction, was infinitely greater than even the wildest imagination could have pictured it. For several years the growth continued, and finally culminated in the “boom” of 1895 and 1896. Then all the world seemed to be cycle crazy, and the reaction which has been in evidence since then was but the logical result of the business having been so badly over done.

With the entrance upon the second decade since the establishment of shows, the trade again finds itself in need of a stimulant. The period of retrenchment, of contraction, is never an agreeable one. The necessity for cutting the garment to match the cloth at hand is obvious, but in what direction the cuts shall be made—what to lop off and what to retain—is not easy to decide and it is only after much travail that conditions readjust themselves.

Therefore, although the trade is in better shape than it has been for a long time, a change for the better is anxiously looked for and would be hailed with unfeigned delight.

Fortunately, the change is in sight, the fillip within reach.

Motocycles have appeared above the horizon, and they are being hailed as the Moses who is to lead the trade out of the land of bondage in which it has dwelt but too long.

It is fitting, too, that they should make their debut at the first show of the new decade. To be sure, a warmer welcome has been prepared for them than awaited the new tires on the first occasion, and greater expectations are entertained of them. But the similitude holds, nevertheless, and there is every reason to believe that the outcome will be equally pleasant.

It is scarcely an exaggeration to say that no action on the part of the trade could stop the ultimate triumph of motorcycles; but it is equally true that ready and hearty

support given them will greatly hasten that much to be desired event.

It rests with the trade, therefore, to say whether it will, as a whole, accept the new machines heartily and unreservedly, or, in part, at least, regard it with a carping spirit, ready to minimize its merits and magnify its shortcomings.

Survival of the Fittest.

As between a small business carefully looked after in every detail, and a large one left to itself in great part and conducted in a happy-go-lucky fashion, there is small room for hesitation as to choice.

Similarly, large profits on paper, undergoing a colossal shrinkage in the process of realization, and modest yet certain ones, are hardly likely to be compared to the disadvantage of the latter.

For these reasons not a few dealers look forward to the coming season with more confidence than a comparison with the “days of long ago” would seem to warrant.

Yet the confidence is not altogether misplaced. There are dealers in plenty who are able to figure out their sales and expenses with almost mathematical accuracy, and who, consequently, can tell whether they can afford to remain in the business.

Their risk is, in many cases, small; their expectations as to business and profits in keeping with their risk.

Nevertheless, their chances of making a profit in addition to a living are by no means as bad as is generally supposed. Always prone to go to extremes, public opinion holds the retail trade too cheaply, forgetful of the fact that such dealers as are left must have qualifications superior to those possessed by the dropped by the wayside class.

In former days any one could be a dealer and remain one almost indefinitely.

Now it takes capital or brains—usually some small degree of both—to enable a dealer to remain in the race.

The beautifully finished cycle is just as attractive to-day as it was when the public was paying \$150 for machines, and, let it be whispered, not quite so much in evidence. There are stands, however, where the showing is of a character to merit the most unqualified approval.

It is very evident that the day of extremes in cycle construction has passed. The reaction is the greater on account of the lengths to which the various movements were carried.

HOW BUSINESS MAY BE BETTERED

The Wholesome Story Drawn From the Practical Experience of a Firm not Frightened by Price—Methods That Brought Increased Sales Even in So-called "Slump Year."

In these times nothing is more valuable to the trade than the experience of the dealer, especially of the dealer who has succeeded, who despite a wave of depression and too general talk of "slumps" has been able to increase his business from year to year. Too much publicity cannot be given to the methods by which such results are obtained.

In Terre Haute, Ind., there is a firm of the sort. They have related the story of "how they did it" and "how others may do it" in most intelligent fashion.

The story was told in a letter to the National Cycle Mfg. Co., of Bay City, Mich., and the National people, not unnaturally, thought so well of it that they have had it printed for circulation. To reproduce it here in detail would entail considerable mention of National bicycles, but enough is worthy of reprint for the lesson it conveys. The firm in question is Hughes, Wolf & Miller; they make plain that they are not slaves to price; their experience is valuable; their story, written by Mr. Hughes, of the firm, is wholesome. Heed it:

"In the winter of 1894-'95 I decided that I wanted to add bicycles to the line of goods I was then selling. Your advertisements interested me, and I asked a friend of mine who was a mechanical engineer to examine the Nationals at the Chicago show, to which he was going. After carefully considering the construction and special features on the National, I decided to take hold of your product and see what could be done with it.

"I was not so situated that I cared to take many chances, and consequently was obliged to take the position of a small buyer—very small at that.

"The results of the first year's work were not particularly encouraging to either of us. I sold twelve Nationals—to be sure, they brought \$125 each, but I had not done what I had expected to do. Nevertheless, I had started the interest in the machine in Terre Haute, and found that all twelve of my customers were enthusiastic National people. Others were interested, and in the following winter I decided to keep up the good work and tie up to the wheel which had given such satisfaction.

"I started with the idea that I had some-

thing better than the general run of bicycles. I believed I had. It was easy to interest the people with whom I talked, for I had something different to talk about than price and name. I found that selling a good thing is like rolling a wet snowball. It was 'dead easy' to make the business bigger. Jim had four or five friends with whom he talked over such things, and they all wanted the same kind. I never let one of them get away without first showing him why the National had the best construction, the newest ideas and was the wheel which would give him the best satisfaction, although perhaps it cost a little more than some others. Before I realized it I was selling and ordering more \$100 wheels than I had thought was possible.

"To make a long story short, the close of 1896 brought my total sales for that year up to 105 bicycles. I felt gratified and pleased—first, over my success, for it was a success; second, because my customers were as pleased with their wheels as I was, and, third, because you people had lent me the assistance I needed to make a success.

"My business in other lines as well as bicycles was getting too big for me, so I took in partners, organizing the firm which has continued ever since.

"In 1897 we jumped the sales to 185. It took hard work, much talk and much demonstration. My old riders helped me, for they had become nearly as enthusiastic as I had. The price never bothered me. I went after them on the ground that I had the best bicycle, worth the price, and I could prove it to any one who could see a point in construction.

"Since then it has been easy sailing. In 1897 we sold 185 Nationals; in 1898, 210; in 1899, 255, and in 1900, 288. How many we will sell in 1901 it is impossible to say, but we are going to do business on the same old lines.

"The price is really not so important as most salesmen think. If a man wants a \$30 wheel I can easily show him where he is saving money by paying a little more and buying a \$40 National. It's the same thing with the higher priced Nationals.

"There was one thing that occurred—in 1896, I think—that I have not mentioned, that helped me a whole lot. In 1896 I sold a wheel to a man who was noted as a hard, long distance rider, and in those days you know we were all working for century bars. He rode the wheel all season and most of that of 1897. In the fall of the latter year he decided to go after some long records on the roads. He believed his National was the

best on earth; so, notwithstanding the fact that he had ridden 16,000 miles on it, in which were included forty centuries, and perhaps ought to have ridden a new wheel, he went ahead. The roads weren't the best in the world, but he cleaned up the triple and quadruple century records in good shape. We felt so pleased over it that after the wheel had been ridden 30,000 miles we took out the bearings from his wheel just to use them as an advertisement, and we have them yet. They do not show a blemish of any kind.

"The chief difficulty the dealer has to-day is the question of price. Now, in my opinion, it would not be so much of a bugbear if he would educate himself to the point of believing that a dollar will buy just so much of any commodity, and no more. If the buyer gets a dollar's worth for a dollar he has got all he is entitled to; and it is not always he gets that in cheap stuff, whether bicycles or clothing. Too many dealers make the mistake of overlooking the quality of the goods they are buying and selling, or the good points which are worth talking about.

"When I take a stranger in hand to sell him a National I don't stick a wheel up in front of him and say, 'Isn't it handsome? It's a National, and costs \$—.' I take the machine to pieces or show him its parts and point out to him the little refinements of manufacture that go to make up a good bicycle. The mechanical design and construction of the machine are fundamental, the finish secondary. When I have thoroughly posted him in the former I call his attention to the general effect of the whole machine, and the price takes care of itself. Well, we don't lose many sales, and as the proof of the pudding is in the eating I take it that our plan is all right. On top of that, my time is not spent in keeping customers good-natured—the wheel does that without any of my work—but in making subsequent sales, and that, aside from the saving of annoyance, means additional profit.

"I don't want you to think that this letter is a 'jolly.' I would just as soon find fault with your goods as any others if it were necessary, but I have sold cheap bicycles and do know that, while it is perhaps easier to make the sale, the work and trouble come afterward. I would a good deal rather spend the time showing a man what a National is and have him go away satisfied, and stay satisfied, than to sell him a cheap bicycle easy and then have him coming around regularly with his troubles and complaints. There's more money in the good stuff at the end of the season, and then's when we figure up our profits anyway."



HARTFORD TIRES

combine that essential proportion of life and strength that brings solid comfort in riding, and dispels all doubts as to safety.



THEY RECOMMEND THEMSELVES TO ALL WHEELMEN,
AND ALL WHEELMEN INDORSE THEM.



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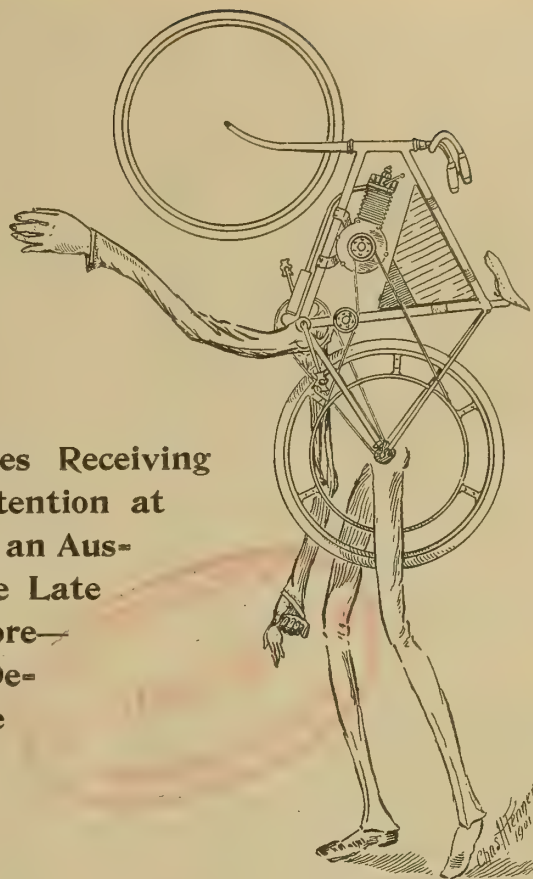
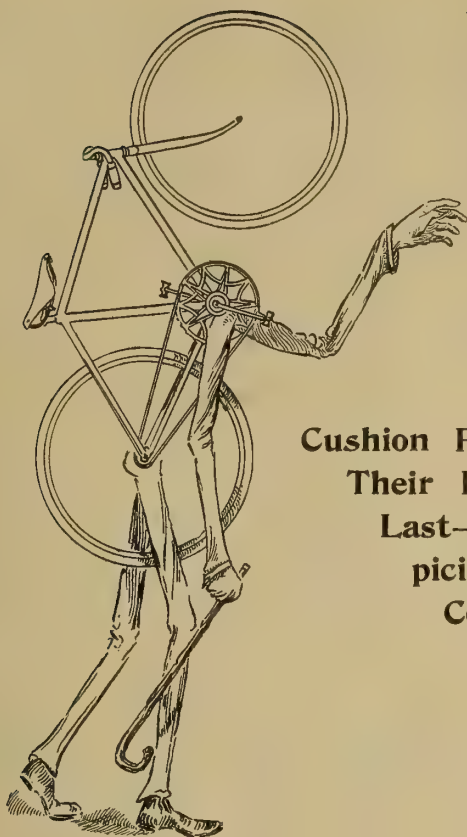
MINNEAPOLIS

DENVER

SAN FRANCISCO

STORY OF THE SHOW

**Cushion Frames and Chainlesses Receiving
Their Full Measures of Attention at
Last—Motor Bicycle Makes an Aus-
picious Debut, one of the Late
Comers Creating a Furore—
Tendencies Clearly De-
fined but Little to be
Found that is
Really New.**



Assuming, for the sake of the pictures, that bicycles could talk and observe the proprieties of an occasion, there is small doubt that on Saturday evening last Madison Square Garden, New York, would have seen the good old pedal pushed bicycle reach out its crank to its newly found brother, the gasolene goer, and exclaim, "Shake!"

It was their first formal introduction, one to the other, and with the imagination still in good working order, one can fancy the pedal pushed continuing, after the crank shake:

"Awfully glad to meet you, old chap. I've heard a good deal about you during the last few months, and I think we'll be able to get along pretty well together. I'm not as young as I used to be, and for the past year or so I've been a bit out of sorts, but with your help we'll make things hum once more. You'll be able to make more noise in the world than I ever did—you're built that way—and you will be able to run away from me uphill and against headwinds, but for all of that, you've a deal to learn. You're a lively youngster, from all accounts, and much is expected of you, but if you follow my lines and profit by my experience, I think you'll come out all right. In my younger days there were few chaps more popular, if I do say it myself."

Dropping metaphor and imagining, how-

ever, it is to be said in all earnestness that the first Cycle Show of the twentieth century and the tenth in its line is most notable because of the formal introduction of the motor bicycle.

At that, there are not very many of the sort in evidence—twelve in all—but even that number is as brave a showing as ever the pneumatic tire, the chainless bicycle, the coaster brake or the cushion frame made at their first appearance at a Show. The fact must not be overlooked nor minimized. There are five motor tricycles, too, at the Garden Show, so that the display of motorcycles is as large as the reasoning and reasonable person had license to expect. And in all truth they constitute the feature of the Show. There is little else that is impressively new, and nothing else that attracts so much attention and arouses so much inquiry and discussion.

The Show opened on Saturday evening last, as per programme, and—but bearing on the subject here is a word painting so full of local color, and altogether so full of richness of a peculiar kind that it deserves to be interlarded for the gaiety of nations and of the cycle trade; it is from the New York World of Sunday last:

"As the doors of Madison Square Garden were swung open for the sixth national exhibition of cycles, motorcycles, automobiles

and accessories last night an expectant crowd surged in. Pretty women, wearing bands of colored stuffs over their shoulders and men carrying bags to put the souvenirs, for which the opening night of every Cycle Show is so well known, rushed in.

"It looked to one unacquainted with the picture as if this was a scene in front of a building of the Department of Charities, as the people poured down the wide aisles, with arms outstretched and hands open, but it was only the good natured crowd, begging for souvenirs and getting tickets with which to vote for the scholar, school teacher or cycle club which he or she thought the most of."

Of course, nothing of the sort conceived by the repertorial brain happened when the doors were opened. There were men and women in fair numbers present during the evening; they had neither bags nor shoulder bands and while they formed a comfortable crowd, the first night's attendance was hardly up to the marks of previous years.

In general lay out and appearance the Show is quite like those that have gone before. The decorations that served for the French ball serve for the Cycle Show, and serve every whit as well as would anything else. There is the usual plentitude of light and color about the exhibits, and, to tell the truth, many of the lights and much of the color is readily recognized as having done duty on several similar occasions. These be

economical times in the cycle trade, you know, and camphor balls cost very much less than new signs and trappings.

SOME OF THE DECORATIONS.

There were those, however, who are not content to show their wares in old clothes, so to speak. The 20th Century Mfg. Co., as usual, are one of them. They have a booth of red, in the wall of which are windows painted to represent stained glass, and when the lights behind are aglow the effect is churchlike. In the rear there are not only lights, but spirits, and the frequency with which the red curtains are parted suggests that communing with the spirits or the obtaining of spiritual consolation is quite popular. The 20th Century people have hit on another happy idea. Instead of scattering printed matter broadcast, their literature is inclosed in envelopes addressed "To the Visitor of the Cycle Show. To be taken home and read at your leisure." As a result, not much of their printed matter litters the floor.

The Solar lamp is garbed in its quiet navy blue, and only a few lamps of each model are displayed. The "joker" of the Solar exhibit is, however, their Fortis electric exerciser. One of them is affixed to the wall, and the amazement following the sensation of needle-pricking that follows its operation is a source of amusement. Aside from this, however, the Fortis is far and away the most beautifully made and finished exerciser ever exhibited anywhere. Matthews & Willard have a tasteful display, which is heightened by the use of several handsome house lamps. The Admiral Lamp Co., unlike the others, display hundreds of their lamps, and the glitter of the nickel against the black velvet background is almost dazzling in its effect.

The most superb effect of nickel against black velvet is, however, a frame of the Forsyth Mfg. Co.'s pedal, guards, spanners, washers, etc., to be seen in the Leng exhibit; nothing more eye pleasing is to be found, for the arrangement of the parts is a design that forms something.

The Veeder Mfg. Co. have a generous space, and realize the benefits of action in a public display. They have a bicycle wheel, a wagon wheel and an automobile wheel in motion, showing the actual workings of their several mileage recorders. The Eclipse Mfg. Co. have a sign in stained glass effect which forms the rather striking background for the Morrow coaster-brake.

SIDE LIGHTS OF THE SHOW.

There's a dash of automobile in this year's Show—or fringe, perhaps, would be the better term, since the motor vehicles form the outer edging of the arena exhibits. The fringe is thin, but it does the Show no harm and on the other hand, it does not seem likely that the Show will do the fringe much good. The country's greatest freak forms a part of the automobile edging, and is daily laughed at and ridiculed, but the Warwick carriage, the Loomis park wagon, with its double cylinder Crest motor and some others

more than counter balance the effect of the freak. While the Show is otherwise conspicuously lacking in the freakish and untoward, it has its lights. Three industrious and well spoken negroes are there showing a collapsible, or, more properly speaking, a detachable bicycle, itself the invention of a colored genius. They are constantly coupling and uncoupling the machines, and almost constantly surrounded by a curious throng, they make the most of their opportunities. For a day or two, however, the wonder of the Show was H. Dixon, who has a spring frame on exhibit. Until he arrived none knew the nature of his wares, and when he himself appeared, the wonder grew. He is a tall, broad shouldered man, and though attired conventionally, he wore an embroidered fez. He was at once set down as a Turk. Silk banners, on which were embroidered "The 20th Century Wheel," and "The World is Moving On," formed a part of his decorations. The wheel he showed was held up not by a stand, but by four shawl straps, held by eyelets screwed into the floor. The supposed Turk was most industrious in the distribution of cards, which were as curious as the arrangement of the exhibit. "I challenge the world," was one of the legends it bore; "Only wheel recommended by medical science," was another; there were several others in keeping. It was not until things had warmed up a bit that it developed that the supposed Turk was a well spoken and capable Canadian, who had a spring or cushion frame of no small merit.

DEMONSTRATING THE MOTOCYCLES.

Down in the basement there was not only light but life. The motorcycles were demonstrated there. There, too, an interested crowd was always to be found. Not only were many given their first rides, but the exhibitors' experts cut capers and "turned things loose" on the unbanked circular track. Of the demonstrators none could hold a candle to Peter Fisher, who "demonstrated" the Thomas motor bicycle. He did it in a fashion that made eyes bulge and must have convinced thousands that handling the new machine is not as hard as fancy pictures it. Fisher is a dare devil rider, and the way he tore around the circle, cut corners and dodged other machines was little short of marvelous. It was a revelation in itself. The Thomas interests should feel the results of his work.

ABOUT THE BICYCLES.

If the present show is to be taken as a criterion, and, notwithstanding the very considerable number of absentees, it is scarcely fair to contend that it should not, the present day bicycle has reached its final stage of evolution, and its makers and designers are willing to rest their case.

To say that the machines as a whole had undergone no change within the year would be going too far. In spite of the fact that many machines would, if placed alongside of the 1900 patterns, be indistinguishable from them, and, therefore, need the significant

figures "1901" which appear on many of their name plates, there is a sufficient number of changed machines to leaven the mass to a considerable degree at least.

At the same time, it must be admitted that, save in the matter of fork crowns, there is to-day a nearer approach to uniformity—that much discussed, abused and praised quality—than at any previous time. Even when the machines which show the most change are taken into consideration this statement is true. Extremes in the matter of design have disappeared almost entirely, and each maker appears to strive to steer a safe middle course.

This is, of course, only another way of saying that the policy of being different from competitors has been abandoned. "Freaky" designing no longer pays, even in matters of detail, and it is not surprising that "freaks" are conspicuous by their absence. This disinclination to stand out from the multitude has even been carried beyond this, and conspicuousness of design is, apparently, just as much tabooed as "freakishness."

NO DEPARTURES FROM THE CONVENTIONAL.

A considerable number of machines undoubtedly show the effect of progressiveness; but it is not the progressiveness that heralds revolution or blazes the way for departures from present constructional methods. Rather is it along certain lines that make for greater uniformity of design. This design, trade sentiment is agreed, is far and away the best available, and the unanimity with which it has been adopted is natural under the circumstances.

With regard to the departures from the standard type—which is, of course, the chain machine—the chainless and the cushion frame, designers and makers have allowed themselves somewhat more latitude. Even here, however, the points of difference are more matters of detail than anything else—the question of placing the forward driving gear, in the case of the chainless, in the centre of the crank hanger or on the side, and the construction of the hinged joint at the crank hanger of cushion frame machines.

On the whole, therefore, the array of "talking points" is rather disappointing. Of those anticipated nearly all are to be found on some machines—but considerable search is necessary before they are located. Inch tubing and reduced weights—to take the most talked of changes—are in evidence, but not to anything like the extent that preliminary announcements led the trade to expect.

COMFORT NOT SPEED NOW PARAMOUNT.

It has been remarked that the rider of to-day goes in more for comfort and rational specifications than was formerly the case, and that imitation of the racing man and his machine is no longer much indulged in. At the present show this tendency is more pronounced than ever.

The avoidance of extremes, the growing popularity of coaster-brakes, cushion frames and chainless machines—all are illustrations of the new movement. The "scorcher's" bi-

cycle has taken a rear seat, that is very evident; and it is undeniable that the changes of the past few years have come in consequence of the divorce of the two classes of riders.

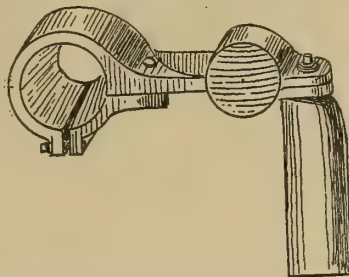
VARIETY IN FORK CROWNS.

Front fork crowns present a curious study. Little uniformity is apparent there, designers being, apparently, utterly at sea in their efforts to form or cater to popular taste, and a perfect chaos has resulted. With the majority of machines alike on other points, when it comes to fork crowns they are as wide apart as the poles.

Two facts stand out ruggedly. One is that the arch crown, so long cock of the walk, has met its Waterloo. The check it received at the 1900 Show has turned into a rout. The other surprising fact is the popularity of the double plate fork crown. It has come into its own again with a vengeance, and at its present rate of progress should carry everything before it next year.

At the same time, the arch crown still retains its advocates. The Victor, the Spalding, the Monarch, the Crescent—these machines are still distinguished by it, although in the case of the last square crowns also are used.

Handlebar and seat post fastenings are also open to the reproach of monotony, but



REGAL FORWARD EXTENSION POST.

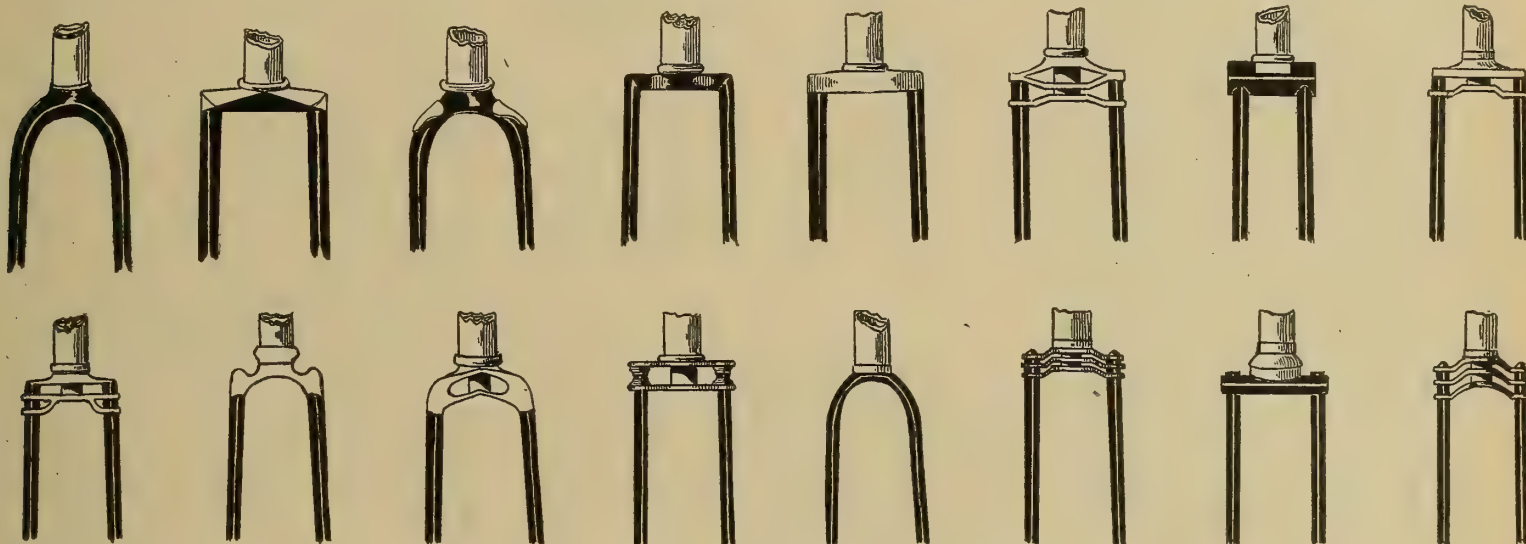
that reproach is really praise. Never has there been such a collection of absolutely irreproachable fastenings as is seen at Madison Square Garden this year. It is no ex-

Large sprocket wheels are distinctly out of style; and this notwithstanding the fact that they are still occasionally seen. Gears have undergone little, if any, change, and the same remark applies to cranks in the main, although the average length has probably undergone a slight increase. Round cranks still predominate, while the flat style seems to have made a slight gain at the expense of the oval, bayonet and other irregular shapes.

Of pedals there is also little new to say. Designs do appear to have been improved; at least, there are many exceptionally good looking pedals to be seen. Methods of fastening are still the same, the vast majority of makers depending on the snug fit of the threaded shank to hold the pedal tight.

The flanged hub is more popular than ever. Direct pull spokes are in evidence in a few places, but the flanged hub has well nigh ousted them, even buttonhole devices on the latter failing to find favor.

Rims are much as usual, although the



SHOWING THE WIDE RANGE OF FORK CROWN DESIGN.

The arch crown is the older of the two, but it had passed out of sight when the double plate type was having its big run. The latter, originally appearing on the English Quadrant in the very early nineties—and, if the truth must be told, breaking at the slightest excuse and sometimes without any, this being owing to defective construction—suffered a temporary eclipse, but after an interval of a few years came to the front again with a success that its early career gave no promise of.

When it used to be said that the arch crown had swept everything before it, the assertion was made with reservations. Such notable examples as the Pierce, the Wolff, the Warwick and the machines of Syracuse origin—to mention only those now at the Show—were always to be reckoned with. It must be with a great deal of honest pride, therefore, that the makers of these machines point to the fact that the trade, after following for years strange gods, have returned to the double plate fork crowns which they retained on their models through good and evil times.

aggregation to say that evolution in this direction can proceed no further; in appearance and in practice the concealed fastening—usually of the expander type—is beyond criticism.

The forward turned seat post is still the great favorite, and sizes and saddle fastening devices remain unchanged. In handlebars, the adjustable type has practically no rival, and the forward, or extension stem has obtained a remarkably strong hold. Many ingenious designs are seen, the fastenings being both clever and artistic. A departure from the ordinary is a bar seen on the stand of the Stearns Bicycle Agency. In this the extension arm is composed of two pieces of flat steel, hinged to permit one to be lifted, thus allowing the bar proper to be removed.

There is nothing particularly new in crank hanger construction. Mechanical fastenings are almost universal, and it is not easy to say whether the one or two-piece type has made the most progress during the year. One or the other style, however, accounts for the great majority of machines.

plain crescent shape has again become almost universal. Deep rims and V shaped ones are, in consequence, much rarer. Colored rims are also the rule.

In tires the inch and one-half size is still the average. While there is possible an increase in smaller sizes—mostly on racing machines and light roadsters—this is balanced by the lessening in the number of tires larger than one and one-half inches. As a matter of course, single tubes still retain their preponderance, although double tubes—both cemented and detachable—are by no means unseen.

It can hardly be said that chain widths have decreased. There are more one-eighth inch chains to be seen, but the increase is so small as to be an almost negligible quantity, affecting the average hardly at all.

A twin roller chain is fitted to two models of the Barnes, and affords a pleasing variety. The Columbia is distinguished by the equipment of its regular \$50 chain models with 1/8-inch chains.

Women's bicycles—drop frames, of course—are a little scarcer than they were a year

ago. Each maker shows them, but they are no longer as prominently staged as men's. Nor have they undergone any appreciable change. The combination of lower tube straight and upper one curved is probably in the lead, but it is hard pressed by the "swan's neck" type.

Weights have undergone a material reduction; but this has taken place usually on racers or light roadsters, which get very close to twenty pounds in some cases, and the full roadsters continue to rule some pounds heavier.

BUT TWO CHAINLESS GEARS REMAIN.

In the number of types, chainless machines have retrograded. In other respects, however, they have made a distinct advance. Few concerns are without a chainless model, while a number push this type as their leader.

The bevel gear and the Sager roller gear are the sole representatives at the Show of chainless type. Both remain unchanged in principle, but improved in detail.

The process of generating the bevel gears—which was by far the most formidable task to be performed—has been brought to a state of perfection undreamed of at the time of their introduction. The Leland & Faulconer method of cutting the gears after they have been hardened, was, unquestionably, the greatest stimulant the bevel gear ever received. With the early gears no such progress as has been made would have been possible. Since then bevel gear progress has been in another direction—the improvement of methods of adjustment, etc.

The Sager gear, too, had its troubles, and has emerged from them with flying colors. Imperfections in the manufacture exercised a retarding influence, but the substitution of a roller for a ball bearing on the gear side of the crank hanger removed the last obstacle and they are now giving the utmost satisfaction. Like the Leland & Faulconer bevel gears, the Sager gear is made either alone or assembled in the important frame parts, ready to go into the complete machine. Specimens of this work, shown by the Riggs-Spencer Co., presented eloquent testimony to the advances which have been made in their manufacture.

While chainless bicycles are still decidedly in the minority, they still make a very respectable showing. They are especially prominent on the Pierce and Warwick stands, and as this prominence is the result of past experience—indeed, those who speak most highly of the chainless are those who know it best—it may safely be left in their hands.

SWEEPING TRIUMPH OF CUSHION FRAMES.

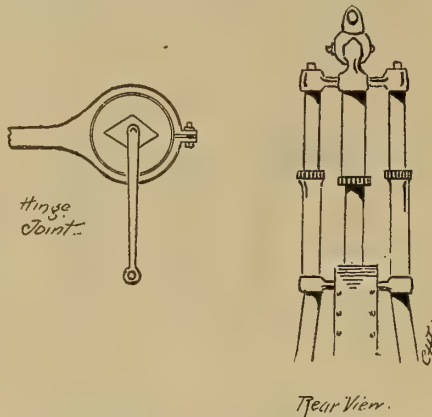
Great strides have been made in one year by the cushion frame machine. At the last Show it had some friends, and most earnest ones. But they were few in number compared with those it boasts of to-day, and the change has been brought about almost entirely by a better or newly acquired knowledge of the device.

The indifference, or hostility, at one time felt for the Hygenic cushion frame was due

almost entirely to prejudice against all spring frames and lack of knowledge of the one under discussion. But this ignorance raised a wall which was hard to scale. Makers not only did not know the merits of the device, but they showed a disinclination to be enlightened. It was only after much difficulty that they were induced to give the subject consideration at all.

However, that is now a thing of the past. The concerns which do not supply the cushion frame could almost be counted on one's fingers. There are few stands at the Show which do not contain at least one cushion frame, and frequently it is found on both chain and chainless types.

The Canadian cushion frame bicycle—the Dixon—naturally attracted much attention, benefitting by the wave of interest in such devices. As will be seen by the cut, the machine presents a good appearance. In each



of the upper rear forks is contained a long steel spring, while the lower fork tubes are run separate to the crank hanger, each being jointed there. The short tube, between the two containing the springs, starting from the saddle post lug, contains a pump-like device, designed to prevent any jerkiness when the springs are released.

The Pierce people were the first to design a chainless cushion frame, and their large ball joint at the crank hanger is too well known to need description. The Warwick chainless cushion uses a neat method to house this joint. On chain machines, of course, the familiar cushion construction is adhered to.

Victor revivodus may well be the cry of the J. Stevens Arms and Tool Co., for they have succeeded in retaining the well known Victor excellences and appearance while adding improvements of their own which bring the machines quite up to date. Not the least noticeable thing is the superb finish of the machines.

The 1900 Indian bicycles demonstrated that Hendee had a keen eye for value, and the new patterns quite live up to the reputation acquired by their predecessors. In the matter of design, equipment and finish it would not be the easiest thing imaginable to find their match, much less their superior.

Preconceived ideas regarding jobbing machines are quite upset by an examination of the Leroy bicycles. In design, construction and finish they fairly put some of the much more pretentious machines to shame.

For years detachable bicycles have been talked of and experimented with, but little or nothing has come of them. At this late date, however, what appears to be a really practicable machine of this description has come on the scene, and the demonstrations of its capabilities speak for themselves.

In a very few seconds the machine, which is termed the Twentieth Century Detachable Bicycle, can be taken apart or put together. First the front forks, handle bar and wheel are detached, then the quadrant forming the front part of the frame, leaving the rear triangle, with the wheel and gearing attached. When reassembled the machine is devoid of all rattle or flimsiness.

THE MOTOCYCLES.

Of the dozen or more motorcycles exhibited, the bicycles are, of course, the most interesting, both on account of their novelty and because they are expected to enter into much the larger use. The Stratton is a good looker, and also carries off the honors in the matter of price, the motor being contained almost entirely within the frame and the machine being catalogued at \$150. The method of supporting the engine seems open to criticism on the ground of inadequate bearing and support, but it is claimed to have withstood exhaustive tests; the idea, however, of containing oil, coil and battery in one case is a step in the right direction. A Wall Street speculator is interested in the machine, the future of which is said to rest greatly in results obtained at this show.

At the other end of the line—again taking appearance—comes the Autobike. It must be admitted, however, that what is lost in appearance is gained in strength. The design of the frame itself is attractive, and the plan of making the fly wheel case a part of the frame is unquestionably sound, as it gives the engine adequate and much needed support, but without material modification it can hardly be made go, in a commercial sense, so incumbered it appears and so wide is the tread and long the frame.

The Ellis & Fleming machine, which drives through the front wheel, is the nearest approach to the Werner type seen at the show. It is heavy and not attractive-looking, and the plan of carrying the motor in front of the handlebar is hardly likely to commend itself, although experience with the Werner has undoubtedly demonstrated that the objections to it are more theoretical than practical.

HEFELFINGER'S CREATES A FURORE.

There arrived at the Show on Wednesday a motor bicycle made by E. Hefelfinger. Town of Union, N. J., and it is no exaggeration to say that it created a sensation.

In the centre of a diamond frame bicycle is built in—in the place of the usual seat post mast—a frame of small tubing to take the motor. Ordinarily this method of attaching it would be attended with many disadvantages, but so compact is the Hefelfinger motor that it does not interfere with the rider or the mechanism of the bicycle in any way. The drive is a chain, running on

two nearly equal sized sprocket wheels, and connected with both the crank shaft of the motor and the pedals, so that either or both can drive. In the crank hanger is a clutch designed to throw the pedals out of gear when they are not driving. A two-speed gear is fitted to the rear hub.

The carburetter is placed back of the saddle and the battery is contained in a long cylinder, which is affixed to the lower frame tube. The flanges for cooling the motor run vertically instead of around the cylinder, as usual.

Altogether the machine is designed to engross a large share of attention, and it is only fair to say that the interest in it increased as the day went on.

Two Regas motor bicycles also put in an appearance on Wednesday. Among the improvements on these machines is a carburetter which is a radical departure from anything heretofore seen, its great merit being its simplicity.

AS TO THE TRICYCLES.

Of the tricycles the Cleveland machine is characterized by beauty of finish and striping and the incorporation in its construction of many Lozier ideas rendered familiar by use on their bicycles. The Thomas three wheelers impress one as being thoroughly practical and well thought out in detail. The Boisselot tricycle is a machine of great strength, equipped with a motor of corresponding power. The latter people have a fetching 20-pound motor which certainly looks well, and which they say has brought them several healthy orders.

It is very plain that the disposal of the motor is the chief problem awaiting a solution at the hands of motor bicycle designers and makers.

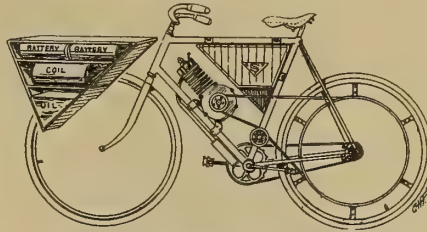
All other problems are, for the present at least, subordinated to this one. While tricycles and quads, present a nearly uniform appearance, owing, of course, to the greater facilities offered for the disposal of the engine, carburetter, etc., as well as to these machines having passed the experimental stage, the bicycles differ widely. The frame is, of course, utilized by nearly every-maker for the purpose of disposing of as much of the motor as possible, but the arrangement is rarely the same in any two machines.

DE DION MOTOR THE STANDARD TYPE.

It is evident that the De Dion-Bouton type of engine is accepted as the standard, and slight effort is made to depart from its essential features. In nearly every case small motors—about $1\frac{1}{4}$ H. P.—are fitted to the bicycles and larger ones to the three wheelers. Air cooling is universal, as was to have been expected.

While the familiar spur gears are used for the power transmission on the tricycles, the leather belt or cord is almost equally in favor for driving the bicycles, the only exception being the Holly Autobike, which employs chain transmission. Nearly all the bicycles have coaster-brake hubs fitted to the rear wheel, the New Departure and Morrow being most prominent.

The "bubbling" or surface carburetter is seen only on one machine, and it is very plain that makers are sufficiently advanced to discard this simple but hardly satisfactory method of preparing the proper mixture of



STRATTON MOTOR BICYCLE.

gas. One or two concerns employ the float feed method, but the majority even dispense with this, conducting the gasoline directly from the tank to the apparatus for spraying it and mixing it with air.

SUNDRIES AND ACCESSORIES.

Absence of too many notables makes it impossible for the show to be described as thoroughly representative in the matter of bicycles, but whatever it lacks in this regard the representation of tires, sundries and accessories is as complete as could be desired. Tires and coaster-brakes are particularly abundant, and most of them stand on their own feet—that is to say, they are not included in the bewildering assortment of wares of the exhibiting jobbers, who are present in force.

There is, however, little that is wholly new. The trade no longer "holds back" for the show; that day passed several years ago.

THE THINGS THAT ARE NEWEST.

Within the strict lines of fact, and without regard to bicycles, the newest things at the show are these: The Diamond double tube, the Hartford thread tire, the Pickett two-piece valve; the Cinch, Acme and Premier coaster-brakes, the Admiral combined gas and oil lamp and the Pneumo automatic emergency pump; and of these the latter is newest. All of the others have been known to the trade and illustrated or described by the trade papers.

The interest in and desire to see the working of the Diamond's novel tube is, by the way, something of a tribute to the trade papers. The Diamond people are making the most of it at the show, and the tube appears to bear out all that had been claimed for it.

And, talking of tires, the Fisk Rubber Co. have a tire that is really remarkable, not for its newness, because it is far from new, but because of its performance—the tires used by Walter L. Stannard, of Springfield,



THE PNEUMO AUTOMATIC PUMP.

Mass., the 200-pound collector who rolled up the staggering total of 38,887 miles during the year 1900. Think what this means and then cease to wonder why the Fisk people are pointing with pride to those tires. On the Willis Park Row Cycle Co.'s Uwanta

tire the red tread stands out and catches the eye and creates inquiry. It isn't a new idea, but in these days, when everything counts, it is a little kink worth reconsideration.

COMBINATION LAMP THAT SHOULD SCORE.

The Admiral combination lamp should appeal strongly to all who seek the "something new," for it fairly bristles with newness, and it is not to be denied that the idea of a lamp that may be used for either oil or carbide is a fascinating one. In the Admiral, it should be understood, this usage is obtained by an exchange of reservoirs—there is one for carbide and an entirely different one for oil. The body of the lamp, however, serves for both, and, incidentally, every part of it is detachable. The "gas works"—that is, the carbide chamber—is a clever conception. It is practically a cup within a cup, with space between; in this space the necessary water is carried, thus surrounding and keeping cool the carbide generator or cup; the latter is pierced by a small perforated tube filled with cotton, which absorbs the water from below and feeds it to the carbide through the perforations, the valve being ingeniously arranged in the bottom of the lamp. The "works" are thus all stored below; the body of the lamp is as simple as an oil lamp. If in service the lamp bears out its claims and appearance, and at the show nothing seems lacking, aggressiveness on the part of its makers should yield rich returns.

AUTOMATIC PUMP THAT IS PRACTICAL.

The Pneumo pump was never seen or heard of before, but it is full of promise. It is one of those much invented pumps that are attached to the tire and keep it automatically inflated, but it is the first of them that does not look the freak and that really appears to do the work intended. The illustration will bear out this statement. As applied to the wheel, it looks merely an enlarged nickel valve stem. The plunger, shown in outline in the illustration, is concealed within the tire; when the tire is soft or deflated, contact with the road brings the plunger into play at each revolution, thus inflating the tire, and keeping it inflated, despite puncture or leak. The pump is made in two sizes, for bicycles and carriages or automobiles, and to the two latter in particular it should prove of great service and value—a statement that does not, however, minimize its usefulness on bicycle tires.

CONCERNING THE COASTER-BRAKES.

That the coaster-brake has come to stay, that it has taken its place as a part of the standard construction of the modern bicycle, is well known. The showing of coaster-brakes at Madison Square Garden but serves to emphasize this fact.

In all, nine different makes of coaster-brakes are exhibited. This is in itself a considerable advance over last year, but the advance is evidenced in other ways as well. Viewed merely as pieces of machinery, the devices are, almost without exception, worthy of the highest praise. The more

closely they are examined, the more severely their work is tested, the better they appear to be.

Three of the devices—the Canfield, the Wyoma and the Crown, the latter shown on the stand of C. E. Miller & Co.—are procurable separate from the hub. The Canfield retains its time-tested method of construction, the operating parts being ordinary steel balls which rest in cams or grooves made in both sides of the sprocket, one being used for the application of the coaster and the other of the brake.

The Wyoma is made in two forms, the detachable and the Universal, the latter being coaster-brake and hub complete. The braking power is exerted by steel rollers traveling up inclines on the sprockets, forcing a cone-shaped fibre washer into a metal cup of the same shape. The coasting mechanism is contained within the sprocket, and consists of steel rollers, blocks and pins.

The other coaster-brakes shown, viz., the Morrow, the New Departure, the Acme, the Cinch, the Nester and the Premier, are marketed only in connection with the hub.

Of these devices the Morrow—the daddy of them all—remains practically unchanged from last year, except that when desired the sprocket is fitted with twenty-seven 3-16-inch balls, which, interposing between the lock nut and the sprocket, make a frictionless contact under end pressure. The strong points of the Morrow are its perfect reliability and ample braking power.

The New Departure is, with one exception, the only coaster-brake that can be applied to chainless machines as well. Consequently

it covers the whole field, and is found on chainless machines almost as often as on chain-driven ones. The construction of the device has undergone changes in detail, the braking disc, which is still placed on the left-hand side of the hub, being increased in diameter, and the worm or screw in the hub being shorter, thus enabling the rider to pedal, coast or brake more quickly than before.

The feature of "tight pedals" is retained, and the rider is never in danger of unintentionally releasing or applying the brake. Another good point is that the machine can be run backward as well as forward.

An exceptionally well designed and constructed device is the Acme. When coasting the hub shell runs on independent ball bearings, and ample braking power is afforded by the use of a large fibre cylinder, which gets a bearing along its whole surface. As the sprocket is driven forward the drive roll clutch engages the inner face of the ball cup, which propels the hub. In coasting the sprocket is held stationary, releasing the drive clutch, allowing the hub to revolve upon the bearings. A slight reverse movement of the sprocket operates the brake roll clutch, which expands the braking ring directly against the hub, forming a powerful brake.

Simple yet highly ingenious is the operating feature of the Cinch coaster-brake. A right and left threaded piece in the centre of the hub is the operating feature. This piece is loosely mounted on the sleeve which carries the sprocket. The sleeve is flattened on two sides and the threaded piece is made

to slip loosely over it. A forward movement of the sprocket will, by turning the threaded piece forward, draw the nuts together on the right and left thread, thus bringing their inner surfaces in contact with the indented portion of the hub shell, causing the hub to rotate forward with the sprocket. A stoppage of the pedals stops the rotary movement of the threaded nut. The hub shell, continuing to rotate, throws the nuts, which when driving have been in frictional contact with it, apart until there is no contact and the hub shell is free to move either forward or back. A slight movement of the pedal backward throws the brake into action. There are three braking surfaces.

In the Nester device the clutches are operated by rollers which are held in position by springs. By this method each roller is doing its share of the work, instead of only one. Two clutches are used, the smaller one for driving, the larger one setting the brake by wedging two pieces of metal, which are attached to the ends of the levers, against the large disc.

In the Premier coaster-brake the wheel in coasting runs on independent bearings; the clutches have no contact with the outer shell of the hub. The brake, being conical in shape, is most powerful, and very quick and reliable in action.

In this connection it is worthy of remark that the American Bicycle Co. are now fitting their chainless with a hub coaster-brake, although they still offer as an option the tire brake to which they last year pinned their whole faith.

SUMMARY OF EXHIBITS AND EXHIBITORS.

Spaces 6-21—American Bicycle Co., New York. Also spaces 56-80, 100-134, 144-159 and 220-221. Columbia, Cleveland, Rambler, Crescent, Barnes and other bicycles, also three motor tricycles and automobiles.

Space 22—D. P. Harris, New York. Adlake, America and Crown bicycles, Oak saddles, Grand Rapids grips, pumps, fittings, etc.

Space 26—Translucent Window Sign Co., New York. Advertising signs.

Space 27—Hendee Mfg. Co., Springfield, Mass. Indian bicycles, \$25, \$30 and \$35.

Spaces 28 and 29—Manhattan Storage Co., Philadelphia. Jobbing bicycles and sundries.

Space 30—Eclipse Mfg. Co., Elmira, N. Y. Morrow coaster-brakes.

Space 31—Jandorf Cycle and Export Co., New York. Jobbing bicycles.

Spaces 32 and 33—Boston Motor Carriage Co., Boston, Mass. Automobiles.

Space 34—Boston Cycle and Sundry Co., Boston, Mass. Thistle, Lovell and jobbing bicycles and sundries.

Space 35—Stratton Motor Bicycle Co., New York. Two Stratton motor bicycles.

Spaces 38 and 39—Loomis Automobile Co., Westfield, Mass. Automobiles.

Space 40—Boisselot Automobile and Special Gasoline Motor Co., New York. One motor tricycle and gasoline motors.

Space 41—C. J. Downing & Co., New York. Sherman and Manson bicycles, Ideal handlebars and Baldwin chains.

Space 42—Warwick Cycle Co., Springfield,

Mass. Warwick bicycles, chain and chainless, and one Warwick automobile.

Spaces 47-50—Tinkham Co., New York. Bicycles, tricycles, etc.

Spaces 51-55—Spalding-Bidwell Co., New York. Bicycles and automobiles.

Spaces 81, 83 and 85—Leroy bicycles, Buffalo, N. Y. Leroy bicycles.

Spaces 82, 84 and 86—Stearns Bicycle Agency, Syracuse, N. Y. Wolff-American Regal and Holland bicycles and Elfin juveniles.

Spaces 135-136 and 197-199—Willis Park Row Bicycle Co., New York. Ferris bicycles and tires, fittings, sundries and everything else that goes to make up a cycle stock.

Spaces 137 and 139—George N. Pierce Co., Buffalo, N. Y. Pierce bicycles.

Spaces 141 and 143—E. R. Thomas Motor Co., Buffalo, N. Y. Three motor bicycles, two motor tricycles.

Space 161—William Hengerer Co., Buffalo, N. Y. Buffalo King bicycles and Premier coaster-brake.

Space 163—J. Stevens Arms and Tool Co., Chicopee Falls, Mass. Victor bicycles.

Spaces 171-173—John S. Leng's Son & Co., New York. Jobbing bicycles, Kelly bars, Forsyth pedals and guards, tires, fittings and sundries.

Spaces 174-175—Charles E. Miller, New York. Two Holly motor bicycles, Crown hubs and coaster-brakes, and parts and fittings generally.

Space 176—H. Dixon, Collingwood, Canada. Three spring frame bicycles.

Space 177—Puritan Tire and Rubber Co. Tires.

Space 178—"The Automobile."

Space 179—A. H. Funke, New York. Baldwin, Full Moon and Autolyte gas lamps.

Space 182—"American Automobile."

Spaces 183-185—Hartford Rubber Works Co., Hartford, Conn. Hartford Conquerer, Flexfort, India and New Brunswick tires.

Space 186—Riggs-Spencer Co., Rochester, N. Y. Sager chainless gear and fittings, and Cinch coaster-brakes.

Spaces 187-188—Badger Brass Mfg. Co., Kenosha, Wis. Solar gas lamps and Forteis electric exerciser.

Space 189—Averell & Son, Brooklyn, N. Y. Puncture wafers and tire fluid.

Spaces 190-191—Fisk Rubber Co., Chicopee Falls, Mass. Fisk tires.

Spaces 192-193—Peter A. Frasse & Co., New York. Parts, fittings and machinery.

Space 194—Shelby Steel Tube Co., Cleveland, Ohio. Shelby seamless tubing, forks, stays, etc.

Space 195—American Pneumatic Valve Co., New York. Pickett two-piece valve.

Space 196—New Departure Bell Co., Bristol, Conn. New Departure bells, coaster-brakes, lamps and bells.

Space 200—Diamond Rubber Co., Akron, Ohio. Diamond 1920 and Waldorf-Astoria double tube tires.

Space 201—Acme Coaster Brake Co., Rochester, N. Y. Acme coaster-brakes.

Spaces 202-203—P. & F. Corbin, New Britain, Conn. Corbin coaster-brakes.

Space 204-206—Twentieth Century Mfg. Co., New York. Twentieth Century oil and gas lamps.

Spaces 207-208—American Dunlop Tire Co., Bellville, N. J. Dunlop tires.

Space 209—Admiral Bicycle Lamp Co., Columbus, Ohio. Admiral combination oil and gas lamps.

Space 210—James E. Garner, New York. Twentieth Century collapsible bicycle.

Space 211—Kokomo Rubber Co., Kokomo, Ind. Kokomo tires.

Space 215—J. T. Wherett, New York. Chains, handlebars, toe clips, etc.

Space 216—Coe Mfg. Co., New York. Kirkpatrick and Wheeler saddles, Sidway and Theim toe clips, J. & L. pumps, Hussey handlebars, etc.

Space 217—Noera Mfg. Co., Waterbury, Conn. New Era gas lamps, Trump cyclo-meters, pumps, toe clips, wrenches, etc.

Space 222—Frank Mossberg Co., Attleboro, Mass. Mossberg bells and wrenches.

Spaces 218-219—Matthews & Willard Co., Waterbury, Conn. M. & W. Duplex gas lamps.

Spaces 220-221—Columbia Sundry Department, Hartford, Conn. Sundries.

Spaces 225-226—Rose Mfg. Co., Philadelphia, Pa. Oil lamps.

Spaces 227-228—Enright & Neff, Newark, N. J. Sales agents, Wyoma coaster-brakes, Oak and Newark saddles, chains, etc.

Space 229—Columbia Lubricants Co., New York. Lubricants.

Space 231—Ellis & Fleming Mfg. Co., New York. One motor bicycle.

Space 232—Canfield Brake Co., Corning, N. Y. Canfield coaster-brakes.

Space 233—International Automobile and Vehicle Tire Co., New York. Tires.

Space 234—C. M. Chapin, Boston, Mass. Pneumo Automatic emergency pump.

Space 236—Puritan Mfg. Co., New York. Gas lamps.

Buescher's New Bell Mechanism.

As a development in bell making, the Buescher Mfg. Co., Elkhart, Ind., are particularly proud of the construction of their new No. 6 bell, shown in the accompanying illustration. The clapper has a longer stroke, they claim, than that of any other bell, and being operated by an arm forming part of the escapement, adds much to its force and durability. The ratchet wheel and dog of this



mechanism are at the bottom of the spring cup, which adds to the strength and compactness of the mechanism.

These features, the Buescher Co. assert, make it a stronger, longer and louder ringing bell than any other of corresponding type. The bell is of the push button variety, the push button being placed to suit the convenience of the rider. The Buescher people say that they have given particular attention to the mechanism of bells, since it is on mechanism that the real merit depends. In addition to the one illustrated, they have several others that are equally representative of the Buescher quality.

Why They are so Prominent.

Whenever the Boston jobbing trade is mentioned nowadays the first name that comes to mind is the United Supply Co. This means that this company is recognized as the Hub's biggest jobbers, that it is to them all goods are first offered, and therefore the opportunity given them of selecting the most desirable lines. The advantages of "first pick" are obvious, and as the men who do the picking are ripe veterans in the trade the United Supply Co. is in a position to offer to its customers the judgment that can only come with years of experience.

Each year before the season opens J. C. Pattison, buyer of the company and also its treasurer, scours the country on the hunt for novelties and bargains, visiting all the principal trade centres and factories, and thus coming actively in touch with the differing conditions that govern the trade in the different sections of the country.

When the selling season opens a corps of experienced travellers covers the New England trade thoroughly, making the first trip with fittings and parts of which the United Supply Co. makes a specialty, and later on another round, when all the standard and most attractive sundries and novelties are shown. The policy of the company is to take care of its trade, to offer only the most salable goods, to avoid "loading up" any dealer with dead stock, and, in short, to recognize that sales must be mutually profitable in order to insure permanent business relations.

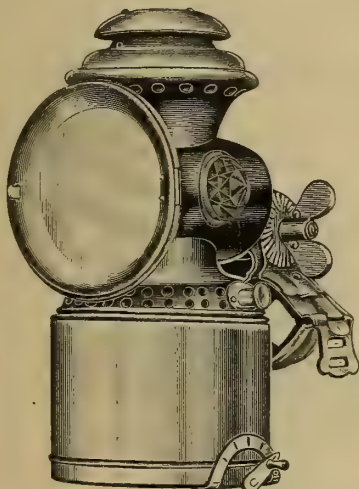
"Not cheaper than any one else, but more satisfactory in the long run" is the sum and substance of the company's contention, and that they are fast proving it their large and growing business fully attests.

THE... *Admiral*

COMBINATION LAMP

Burns OIL or GAS.

THE IDEAL BICYCLE LAMP OF THE TWENTIETH CENTURY.



Burns with a clear, steady flame.

No jarring or blowing out.

Always ready.

No freezing up.

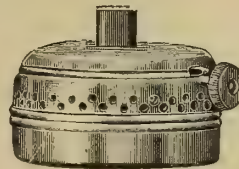
Easily cleaned.

Attractive in appearance.

Dealers pronounce it "The leader for the coming season."

If you haven't already placed it in your stock, it will be to your interest to do so.

Here is
THE PRIZE



that goes with every
"Admiral"
Combination Lamp.

SEND
FOR
CATALOGUE.

MADE BY

THE ADMIRAL BICYCLE LAMP COMPANY,
COLUMBUS, OHIO.

THE BEST AND MOST COMPLETE 1901 LINE

CONSISTING OF THE

ADLAKE

"The Wheel
of High Degree."

AMERICA

"Truss
Frame."

CROWN

ROADSTERS.

CYRUS

Juveniles.

THE GREAT WESTERN MFG. COMPANY,

LA PORTE, IND.

BRANCHES: NEW YORK.
101 Reade St.

CHICAGO.
110 Ontario St.

BOSTON.
170 Oliver St.

PHILADELPHIA.
933 Arch St.

SEE US AT THE NEW YORK SHOW.

This Should Interest You

Because the prices are SO LOW, and the lamp SO GOOD,
that it is GOOD VALUE.

THE IMPERIAL GAS LAMP

is admittedly the best made and most ornamental fixture on the market, and the light is brilliant and satisfactory—It burns common stove gasoline, giving 100 candle power light and there is no odor, no smoke and no clogging—Thousand in use and giving satisfaction—Every lamp guaranteed and shipped complete—Terms are cash with order and lamps are shipped F. O. B. Chicago.

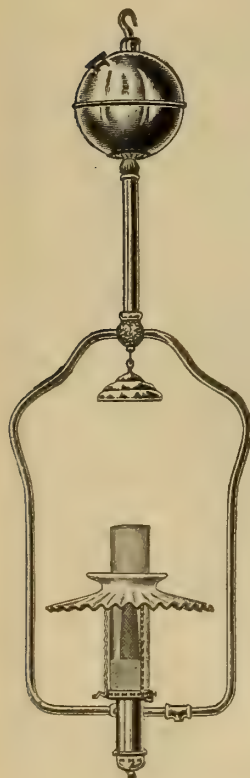
Prices include boxing, and are for lamps boxed singly—When ordered in quantities of more than one the price will be 19 cents less per lamp, this 19 cents being exact cost of packing and boxing.

Lamps No. 113 Wall Lamp Price \$2.39 each,
" " 101 Harp " " 3.19 "
" " 121 Two light chandelier 5.39 "
Students Lamp Price \$4.89 "

Write for catalogue and send sample order.

THE IMPERIAL GAS LAMP CO.,

132 and 134 East Lake Street, CHICAGO, ILL.



THE LOWEST PRICE

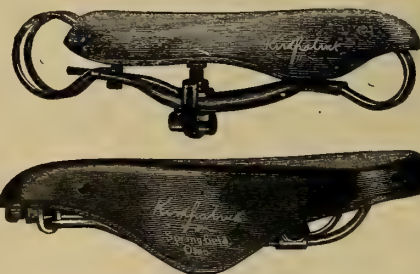
IS

THE MAKER'S CONFESSION

that his goods are NOT the best.

The Kirkpatrick Saddle

is not the lowest in price,
but the price like the saddle is right.



FOR FIFTEEN YEARS

conceded to be the most comfortable made.

SEND FOR CATALOGUE.

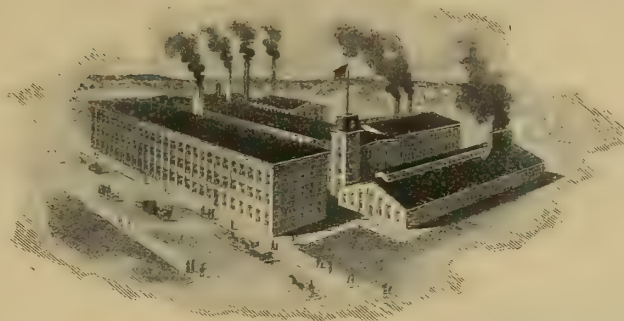
KIRKPATRICK SADDLE CO., . SPRINGFIELD, MASS.

The New Departure Bell Co.

AT CYCLE SHOW, MADISON SQUARE GARDEN.
THEIR EXHIBIT AND MEN IN CHARGE.



A. F. ROCKWELL,
Secretary and General Manager.



W. A. GRAHAM,
of John H. Graham & Co.

This energetic concern is very much in evidence at the Cycle Show being held at Madison Square Garden this week. Their line of sundries is large and more extensive than ever before.

They are showing over one hundred different styles of bicycle bells, including a new line of 2½ inch and 3 inch electric, double stroke, tire, tandem and other bells of different designs which give an extra loud ring.

In their show case are cyclometers in three styles, regular, security and coasting, and all the interior parts showing the mechanism, is of much interest to the buyer. "Metal the only material used, and no metal softer than brass," is the special feature of the New Departure cyclometers.

Their Twin Head Acetylene Lamp is attracting much attention. It fastens on to frame just back of head on lower tube, the head lights project forward on each side of name plate, and it can be adjusted to any angle. The single head lamps, pumps, trouser guards, and last, but by no means least, their New Departure Coaster, go to make up their exhibit, and a very interesting one it is, too.

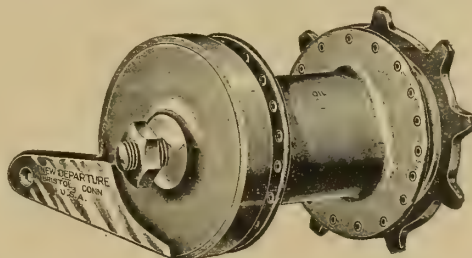
Their coaster they claim to be the smoothest device ever applied to a bicycle; no pawls, cams, spring, fibre or soft metal parts, but a plain, simple, secure arrangement of six parts, accurately made and properly hardened, easy to assemble or take down, finished in the finest possible manner—in fact the only coaster hub on the market which is mechanically correct.

This company has no less than five signs distributed at different points throughout the garden. One, in space No. 136, almost

opposite the main entrance, reads: "New Departure Coaster Brake." This is one of the finest signs at the Show, and is made of bell gongs mounted on dark blue velvet. The contrast is both striking and effective. At this space coaster brakes only are shown.



At space No. 196, in the gallery, there is a dark red sign, with white letters, framed by heavy silk chenille draperies, which is a new and natty arrangement. The entire line of New Departure sundries is shown at this space. At the further end of the hall, at the end of space No. 171, is a metal sign: "Incomparable New Departure Bells." This, barring one or two, is the most costly sign ever erected at a Cycle Show. These signs, placed at different points of the Garden, combined with placards, catalogues and stick



pin souvenirs ("The Modern Witch"), go far to prove that this hustling concern is up and doing, and that their output is of the finest and most up to date.

Bristol, nestling among the hills of Connecticut, where the manufacture of bells is one of the chief industries, is the home of the New Departure Bell Co. The cut of their plant here shown, gives an idea of its magnitude. It has a floor space of 60,000 square feet, and the large demand for their sundries has kept the factory running full time in all departments, and over time in the coaster brake department, for some little time. Five hundred hands and twenty-six heads of departments—including a printing and electrotyping room—combine to make

up one of the finest and best equipped plants in the country.

Mr. A. F. Rockwell, the secretary and general manager, and inventor of the New Departure Coaster, as well as most of their bicycle bells, is a practical man of rare experience.

John H. Graham & Co., No. 113 Chambers Street, New York, N. Y., are selling agents for the New Departure Bell Co., and handle their entire output. To their energy much of the company's success is due. In writing for quotations address them.

Mr. W. A. Graham, largely interested and a director in the New Departure Co., is one of the most widely known men in the jobbing trade. He has been identified with the New Departure Bell Co. since its incorporation.

Mr. W. H. Graham is one of the representatives of John H. Graham & Co. His territory covers all the large cities between Washington and Boston, and he, naturally, is greatly interested in the success of the New Departure Bell Co.'s exhibit. His face is a familiar one, and he is making it pleasant for many of his customers who are visiting the Show. Mr. Graham has worked hard to bring this company before the public at this time, and a visit to the Garden will demonstrate that he not only has done it, but done it well. Mr. D. W. Page, assistant manager and advertising agent of the New Departure Bell Co., has charge of the exhibit from the factory end, and has been hand in hand with Mr. Graham in helping to make the display a profitable one.

Mr. C. A. Hoagland, J. H. Graham & Co.'s head salesman in the Western States, is also in evidence with a warm hand clasp and cheery greeting for all.

* * *



W. H. GRAHAM
Representative for Graham & Co. in Eastern
and New England States



DEWITT PAGE,
Assistant Manager and Advertising Agent
New Departure Bell Co.

It affords us pleasure to announce that the

Wolff-American, Regal and Holland

Bicycles will be on exhibition

AT THE SHOW.

A full line will be displayed at our exhibit, Spaces Nos. 82,
84 and 86, Madison Square Garden,

January 12th to 19th, 1901.

Dealers who will be unable to attend the "Show" should
address all communications relative to
agencies, etc., to

STEARNS BICYCLE AGENCY,

Distributors of Bicycles,

SYRACUSE, . . . N. Y.

CARLOADS GOING WEST

**California Commences to Take Purchases—
Johnson and Racycle Make Connections.**

San Francisco, Jan. 12.—These two busy men of the trade were met yesterday: Thomas H. B. Varney, of this city, and C. R. Mershon, of Sacramento. Mr. Varney, the Rambler and Ideal agency man, was caught on the wing during a meal adjournment of a Federal Grand Jury, in the United States District Court, of which he is a member, and hadn't time to say more than that his sample motor tricycle is due to arrive this week, and that his road men on bicycle lines are doing a good business.

The Sacramento man mentioned, C. R. Mershon, is representing the Racycle's Pacific Coast branch house at Sacramento, F. M. Jones, manager. With a full line of 1901 samples Representative Mershon is about finishing an all around California trip, establishing Racycle agencies, and reports all dealers in the State predicting for this first year of a new century a first rate bicycle business, as compared with last year. After a few days this traveller, who, previous to the last season, was in the trade at Des Moines, Iowa, will have decided on who shall be the San Francisco agent for this popular wheel—the Racycle.

Three carloads of Iver Johnson wheels are expected to arrive on the coast this

week, one car each for Edwin Mohrig, San Francisco; A. R. Maines & Co., Los Angeles, and Honeyman, De Hart & Co., Portland, Ore. These three new agencies on the Coast were created quite recently by Representative Charles R. Haire, who came here for the management of the Iver Johnson bicycle manufacturers to carefully scan the field and pick out for the three cities named wheel agents of A1 reputation. Edwin Mohrig, proprietor of the Yosemite Cycle Works, has Central and Northern California; A. R. Maines & Co. Southern California, and Honeyman, De Hart & Co. Oregon and Washington.

Glynn Emulates the Birds.

One dealer who has succeeded in making his business considerably more of a year-round one than that of his fellows is Fred. Glynn, who conducts a store in Cambridge, Mass., during the spring and summer, and a similar one at Jacksonville, Fla., in the winter. He has just made his annual migration to the South.

Temperature Exaggerated.

The temperature of acetylene gas flame has until now been given at ridiculously high figures, reaching 2,100 and 2,420 degrees. Experiments have proved that this is much too high, and 1,400 degrees can be taken as a safe estimate. The melting of platinum wire is the best proof, and even if that requires sometimes up to 1,920 degrees, the safe average is as above given.

TRAINLOAD FOR EXPORT

**Twelve Cars of Western Bicycles Being Made
Ready for England.**

Reports from Racine say the factory of the Wisconsin Wheel Works is now running overtime, and expects shortly to be compelled to put on a full night crew to take care of orders coming to them from all parts of world. In the course of the next few weeks this company will ship a solid train, consisting of twelve or more large cars full of export bicycles. The shipment will be consigned to Davis, Allen & Co., No. 44 Stone-st., New York City, and Nos. 20, 21 and 22 Chapel-st., London, E. C., who represent the Wisconsin Wheel Works in Great Britain and Continental Europe. This train load of bicycles is to fill in part only specified orders, exceeding ten thousand bicycles. The first train will be gayly decorated and run through to New York by daylight. Train loads of bicycles have been heard of before, but not for export on a bona fide specified order. While some think that the bicycle business is a dead issue, the Wisconsin Wheel Works naturally do not agree with them.

If you are in business for profit it will pay to keep posted. THE BICYCLING WORLD will do the posting.

THIS

is of no significance.

BUT

the line following contributes to the making of ideal bicycles.

SAGER GEAR CO., SADDLES, ETC.

LEFEVER ARMS CO., CHAINS.

CYCLE COMPONENTS CO., PEDALS.

PARK CITY MFG. CO., D. & J. HANGERS.

TUCKER RIM CO., RIMS, GUARDS.

I. A. WESTON CO., HUBS, ETC.

RIGGS-SPENCER CO., BICYCLE SPECIALTIES.

C. J. IVEN & CO., U. S. Selling Agents. ROCHESTER, N. Y.

THERE'S AN

Eclipse

Cushion Frame Bicycle, too

and we consider it ahead of anything of the sort
anyone else can offer you.

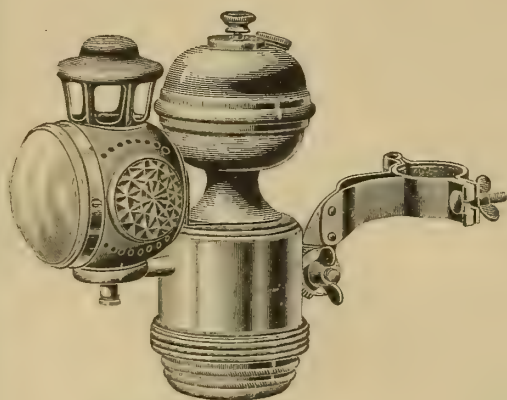
"Take your pen in hand and drop us those few lines" that will bring you
prices and particulars. They'll interest you all right.

SEYMOUR MFG. CO.
FRANK F. WESTON, SALES AGENT,
99 CHAMBERS ST., NEW YORK.

NEW ERA GAS LAMP.

**LOOKS BRIGHTER.
BURNS LONGER.**

**KEEPS CLEANER.
THROWS FURTHER.**



Entirely different from anything on the market, and containing
features which will not be excelled for many seasons to come.

ABSOLUTELY AUTOMATIC.

Special Features: New patented system of Gas Generation. No valve adjustment required. Will burn
when wanted and not go out.

Height, 6 in. Weight $1\frac{1}{2}$ lbs. Jewels $1\frac{1}{2}$ in. large. Lens $2\frac{1}{2}$ in. Bullseye.

ALL LAMPS FITTED WITH NEW DUPLEX BURNERS.

**HAND PUMPS, FOOT PUMPS,
AUTOMATIC PUMPS, FLOOR PUMPS,
WRENCHES, TOE CLIPS,
CYCLOMETERS.**

FOR SALE BY LEADING JOBBERS.



Complete catalogue on application.

NOERA MFG. CO.,

Waterbury, Conn., U. S. A.

ABOUT MOTOCYCLE PRICES

When Their Reduction is Likely—Some Items That Add to the Cost.

Whenever C. H. Metz, president of the Waltham Mfg. Co., is around, it is rare that motorcycles are not talked of. Mr. Metz was around, that is to say, he was in New York, on Saturday last. He talked of motorcycles, and as always, talked interestingly.

"How are things going?" he repeated, in response to the inquiry. "I don't know that we can complain. Our motorcycles are selling as well as we have reason to expect, and better than this, they are giving satisfaction wherever used. Within recent months I think we have had but one complaint, and that from a dealer whom we expected to complain; he is of the complaining kind, but as he also placed an order for another motor bicycle at the same time he made his complaint, it is easy to see that the fault, whatever it may have been, was not a great one.

"The price, of course, is the great stumbling block in the sale of motorcycles. The trade and the public have been so saturated with the doctrine of cheap price that nowadays they are shy of anything suggestive of an increased figure. Not only have we had people rail at the price, but more than one inquirer has said that even if he had the money, he would not pay it. Everyone seems to think that at \$200 or \$250, there is untold profit in the machines, and when I tell you that at these figures there is very little in it for us, it may amaze you, but it is true, nevertheless. Motorcycles cannot be built for a song. Their development and perfection is a slow process, and the unreasonableness of the public, and, in fact, of many retailers, in the matter of price is all that holds them back."

"When is it likely that the price will be brought down to a popular figure, say \$150?"

"Only when it is possible to put motor bicycles through in quantities of from 2,000 to

3,000. Were we certain that we would run no risk in making up an output of that quantity, a more popular list price would be in sight. It is only when we deal with large quantities that reductions are possible."

"Do you look for any radical departure in the matter of motors?"

"Almost anything is possible in that direction," replied Mr. Metz. "There is no limit to inventive genius in that regard. The motorcycle is rich in its untold and unthought of possibilities. The perfection of anything that may be brought out, however, will take time. You have heard and will hear of wonderful motors, but they are worth nothing until they are proven right by extended practical test. We have had plenty of experience in this regard. It isn't so long since McEachern, the Canadian racing man, came to us and ordered the frame of a tandem to which a new motor he had found was to be fitted. The motor he had discovered was not only wonderfully cheap, but he asserted that he knew it to be all right; he had seen it run at great speed for hours in the model room. We were much impressed, and awaited developments anxiously. They came in unexpected form, that is, in the shape of McEachern's order for an Orient tandem fitted with one of our motors. The wonderful motor he had discovered utterly failed to pan out on the track or road.

"This is but one illustration. Other incidents of the sort are occurring constantly. Motor perfection is a mighty task. Take some of the minor details—the float, for instance. Can you imagine anything seemingly more simple than the use of what seems a bit of cork, to mark the depth of gasoline in the carburettor? When I tell you that, after examining the foreign article, we used American cork, and for a long while did not learn the cause of the trouble, you may smile. It is true, however, that the very character of the cork in the float is of no small importance. The matter of cylinder rings is another apparently small item. The foreigners use cast iron; we thought we were improving on them by substituting steel

rings, but we had to go back to cast iron.

"This will give you an idea of what adds to the cost of motorcycles, and what the newcomers must encounter. One can learn only from experience, and experience is expensive. We are as anxious as anyone to see the motorcycles in extended use, but we cannot do business at a loss, and until the demand is sufficient to justify production in quantities, no substantial reduction in list price is possible."

Willis Expects to Double His Business.

Comparatively few who do business at any great distance from New York realize the prominent position in the trade which the Willis Park Row Bicycle Co. has attained. It may be too strong to say that Willis is the most sought after handler of cycle wares in the metropolis, but the statement is not far from fact. He is certainly one of the largest jobbers in the country, and handles the goods of some fifty of the best known makers.

Some idea of the business done may be obtained from the fact that during last year they sold 39,000 pairs of Diamond tires, in addition to large quantities of Hartford, Goodrich, M. & W., and other standard makes. Altogether the sales of tires reached 78,000 pairs. Willis is now credited with having contracted to take the output of a certain tire factory, something in the neighborhood of 100,000 pairs.

Willis is no pessimist, either. It has taken eight years of hard and earnest work for him to obtain his present position, and large and satisfactory as has been his trade, he states that he expects this year to double it, and he is working to that end.

Ships Samples on Approval.

D. B. Smith & Co., of Utica, N. Y., evidently have faith in their new Auto Bicycle Pump. As evidence, witness their offer to ship samples on approval. The pump is of recent origination, having been patented as late as October 9, last. It has a solid base, will stand alone, and is fitted with Smith & Co.'s patented air tight swivel.

THE GENUINE PERSONS.



BEWARE OF COUNTERFEITS.

About Attaching Motors to Bicycles.

One might almost as well attempt to divert Niagara from its course as to stop the fitting of motors to existing man-driven bicycles. All that can be expected from the policy of discouragement which should be generally adopted is the confinement of the evil within somewhere near reasonable limits, and even this can be done only by concerted and immediate action on the part of the cycling press and trade.

The warnings which The Bicycling World has sounded on this subject have been seconded by The Cyclist, which returned to the subject in a recent issue, saying:

"Last autumn when we published our leader warning riders against attaching motors to their bicycles built only for pedal propulsion we were subjected to criticism in certain quarters for premature warning, as it was pointed out that no such motors were obtainable. However, we happened to know quite well what our critics did not—that a number of these motors were being made, and would soon be put on the market. Since then what we predicted has come to pass, and several firms are advertising their willingness to supply engines and gear complete for attachment to existing bicycles.

"We therefore repeat our warning that this is not a safe procedure. There is, of course, no difficulty whatever in building a bicycle which shall be amply strong to carry a rider and a motor, and not only so, but to stand the drive and vibration of the engine plus

the pedalling of the cyclist, but what we warn our readers against is the fitting of an engine to a machine only intended for human propulsion and for carrying a rider without an engine.

"We are perfectly willing to concede that, given an eight-stone rider and a bicycle built for a fourteen or fifteen stone man, it is more than likely that the machine would be strong enough for the fitting of a motor, but it may be remarked that, quite apart from the strength of the bicycle framework and wheels, it is well to bear in mind that the average light roadster tires will be likely to give trouble when overloaded, and not only so, but they are too small in diameter to give sufficient air cushion for a bicycle propelled by a relentless motor, especially as in many cases the pace of the machine will often be very considerably higher than that which its rider could compass unaided."

No Longer Conscious.

Although it is the general belief that cyclists are yearly decreasing in number, says a New England journal, the old riders claim that while the faddists have disappeared there is an actual increase in regular cyclists. Wheelmen are no longer conspicuous, because they do not spend their time running up and down the street to "show off," but a great many more wheels than formerly are used for purely business purposes.

All Industries Affected.

It is not the bicycle trade alone that has to complain of the downward tendency of prices. Every manufacturer is confronted with the same problem, the same necessity for reducing his cost to meet the cry for still lower prices, and thus leave himself some profit for his pains.

Throughout the whole domain of manufacturing, says one who has studied the subject, cost and price have been going down decade by decade, year by year. The lines of declining prices are converging toward a focus. Cheapness is epidemic. The mechanical and metallurgical geniuses of the world are beating their heads against the walls of their laboratories to find how to reduce the cost of this a dollar a ton, of that a tenth of a cent a yard, of the other thing a fraction.

"How much" is on the lips of the millions. The downward momentum toward greatest attainable cheapness has drawn hundreds of millions of invisible capital together to serve their mutual interests, exactly as a Westinghouse brake stops a train.

Hearing was Continued.

There was a hearing in New Haven, Conn., last week on the bankrupt estate of Remillard & Valois, bicycle dealers of that city. The hearing was continued for fifteen days to give the trustee time to get his final account ready. The matter before the referee was the disposal of certain machinery on which there is a chattel mortgage.

THE POST & LESTER CO., Successors to
The Cycle Supply Co.

HARTFORD, CONN.

Wholesalers of

BICYCLE AND AUTOMOBILE
SUNDRIES AND SUPPLIES.

Largest Assortment in New England.

SEND FOR 1901 CATALOGUE WHICH IS NOW
READY FOR DISTRIBUTION.

The line and prices will interest every dealer and repairer.

There is no better side-line for bicycle dealers than GOLF GOODS. We have a complete line of clubs, balls and sundries at prices that are RIGHT.

WARWICKS

... Chain ... Chainless ... Cushion-frame ...

As always,

BUILT ON HONOR.

We realize what this means and our bicycles prove it.

If bicycles of this sort appeal to you,
"let us reason together."

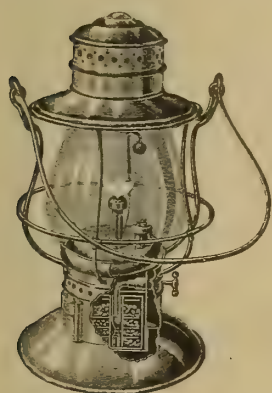
THE BOSTON SIX-DAY RACE

was won by "Bobby" Walthour on a Warwick.

Jimmy Michael rides one, too.

If you are interested in automobiles, the Warwick automobile cannot fail to interest you.

Warwick Cycle & Automobile Company, Springfield, Mass.



SELF PRESERVATION

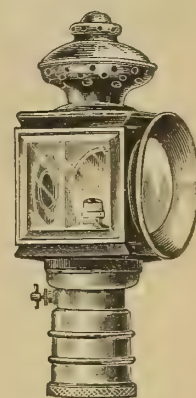
IS THE FIRST LAW OF NATURE.

WHY

SHOULD YOU HELP YOUR COMPETITOR WIN

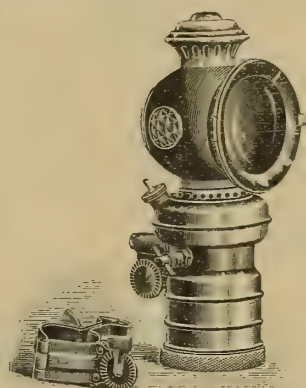
PRIZES ?

HONEST GOODS AT HONEST PRICES.



\$2.00.

\$2.00.



THE BUNDY 1901 BICYCLE LAMP.

SPACE 174-175.

CHAS. E. MILLER,

Jobber and Exporter,

97 READE ST., NEW YORK.

NEW YORK OFFICE,
99 CHAMBERS STREET.

FRANK F. WESTON,

Sales Agent.

To the Jobber and Dealer a profit from start to finish. To the Rider fairness, economy and satisfaction.

Our line is the most extensive on the market, and you can't afford to be without it. Electros free.

THE FRANK E. BUNDY LAMP AND SUNDRY CO.,

ELMIRA, N. Y.

WHAT IS RARER THAN A



ON A CHEAP BICYCLE!

99

CHAMBERS STREET,
NEW YORK CITY,

IS OUR NEW ADDRESS.

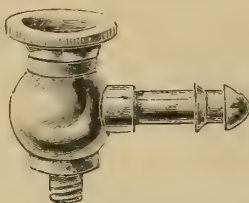
WE SELL TO JOBBERS ONLY.

COME AND SEE US FOR

NICKELED NUTS AND WASHERS
HUB AND CRANK AXLES
MUD GUARD BRACES
CHAIN GUARD BRACES
SPROCKET BOLTS AND NUTS
CLAMP BOLTS AND NUTS

FOOT PUMPS AND STORE PUMPS
PLUG AND VALVE PLIERS
FORK REPAIR TIPS
EXPANDER BOLTS AND LUGS
ADJUSTABLE CONES
PUMP CONNECTIONS

Our New "KEND" Connection, shown herewith,



IS THE BEST ON EARTH. THE THREADED PART IS STEEL.
ELECTROS FURNISHED.

STEVENS & CO.

OUR SPECIALTIES ARE

Brenann Gasoline Motors

FOR AUTOMOBILES.

BRENNAN HANDLE BARS

FOR BICYCLES.

See exhibit of Chas. E. Miller,
Spaces 174-175,
Cycle and Automobile Show,
Madison Sq. Garden, Jan. 12-19

BRENNAN MANUFACTURING COMPANY,

SYRACUSE, N. Y. U. S. A.

Everything to Build and Repair Bicycles
and Automobiles.



Send your name for 1901
Bicycle Catalogue now in
preparation. It will be one of
the most complete ever issued.

Write for prices on Crown
Hubs and Crown Coaster
Brake for bicycles and moto-
cycles.

CHAS. E. MILLER, 97-99-101 Reade St., NEW YORK, N.Y.

C. J. DOWNING & CO., 99 Reade St., New York

OUR LEADER

SPECIAL \$12.⁵⁰ BICYCLE

MANUFACTURER'S AGENTS FOR

Sherman and Manson Bicycles. Ideal Handle Bars.
Baldwin Cycle Chains. Rome Bicycle Pumps.

CONCERNING CASTINGS

New Process of Manufacture which Appears to Mark a Substantial Advance.

Castings have always been spoken of sub rosa in the bicycle trade, but for all that they have been—and still are—pretty extensively used.

The introduction of chainless machines rendered castings more necessary than ever, and the coming into use of motorcycles and other forms of motor vehicles is opening up a still wider field for them. There are certain fittings which, either on account of their intricate shape or extreme cost if drop forged from dies, are almost certain to be cast for a considerable time to come.

Great improvements in the art of casting metals have taken place in the last few years, and at this juncture comes a new process which is spoken of in high terms. The Tropenas process, as it is termed, is one in which pig iron and selected scrap previously melted in a cupola are subjected to an air blast of from 3 to 4 pounds pressure per square inch directed horizontally across the top of the molten bath. This action generates intense heat by the combustion of the metalloids in the pig iron, and after a period varying from 16 to 20 minutes, depending on the quality of the charge used, there remains in the converter a bath of nearly pure iron. Addition is made of ferromanganese or ferrosilicon, or both, to bring the silicon, manganese and carbon contents up to the specified proportions, when the metal is drawn off into a ladle and poured. The process is very simple and the product very regular.

The peculiar advantage of the process lies in the fact that the resultant metal is much hotter and consequently more fluid than that produced by any other method thus far in use. And it is this fact which makes it valuable in the manufacture of small or intricate castings, as it can be poured over the lip of the ladle in as small a stream as desired, and will run through thin sections, producing solid casting free from pin holes and cracks.

The castings have been shown by practical tests to be fully equal in physical proportions and chemical composition to the best open hearth steel. The characteristics of this steel have been the subject of investigation by the United States Government, whose inspectors took every pains to satisfy themselves of its quality before accepting it. They pronounced its physical qualities equal if not superior to those of open hearth steel.

Miscellaneous castings, unless otherwise specified, are made of mild steel, which is tough and machines readily, having a tensile strength per square inch of 65,000 to 75,000 pounds, with an elongation of 20 to

30 per cent. They are solid and true to pattern and can be furnished in much less time and at a lower cost, particularly where special dies and appliances for forging are made. The castings have a smooth surface and the metal will stand forging and welding. These castings do not require annealing, and consequently the day after a pattern is received at the foundry it is possible to turn out a day's work, running from one to several hundred pieces, and the day thereafter the casting may be cleaned and ready for shipment.

Where possible all patterns are moulded by machinery, which insures uniformity. The makers state that all kinds of work in the shape of special castings for cycle and automobile construction, general railroad, mining, electrical and machinery parts calling for lightness and strength can be made in Tropenas steel with satisfactory results.



NEW YORK BRANCH: 214-216 WEST 47th ST.
BOSTON BRANCH: 80 BATTERYMARCH ST.
Near Fort Hill Square.

Muffler is Important.

To reduce the noise of the exhaust, or even to do away with it altogether, is a comparatively easy task. But to accomplish this without causing "back pressure"—that is, opposing such a resistance to the expulsion of the used gas as to detract from the efficiency of the motor—is anything but easy of accomplishment.

An apt illustration of this was afforded at a race meet in Australia—for the season is at its height down there—where the crew of one motor pacing machine removed the muffler. This increased the noise, but likewise the speed. Thereupon a rival crew had recourse to the same step and found that their machine was made several seconds faster in the mile by so doing.

"Motocycles and How to Manage Them." The only book of its kind in existence. Price, 75 cents. For Sale by The Goodman Co.

CONNECTICUT'S SECOND-HANDS

Law Goes into Force Requiring that Records of Them be Kept.

With the beginning of the new year a Connecticut statute went into effect which should have the effect of rendering the recovery of stolen bicycles very much easier than has been the case in the past.

The statute referred to was passed by the Legislature in 1899, and is designated as Chapter 109 of the Public Acts. Under its provisions all dealers and traders in second hand bicycles, junk, old metals and other second hand articles shall pay to the Chief of Police a license fee of \$5 per year, and conform to the regulations as laid down in said chapter.

It is expressly stipulated in the act, however, that it is not to apply "to manufacturers of, dealers in or repairers of bicycles, who sell the same at first hand, taking second hand bicycles in part payment of the selling price of a new bicycle, and who are not dealers or traders in junk, old metal, or second hand articles other than bicycles, but said manufacturers of, dealers in and repairers of bicycles shall keep a book in which shall be written in English the name, residence, apparent age and a general description of the person from whom and the time and hour when each second hand bicycle was received, and a description of such second hand bicycle showing its number, name and make, which said book and said bicycle may be examined at all times by the selectmen in towns, or by any person designated by them, and in cities by the chief of police, or any person by him designated.

"The fine for refusing to keep a book with the entries made properly or refusing to allow the proper officers to examine the bicycle or books is \$25 or imprisonment for not more than three months, or both."

Prof. Sharp's Good Advice to Britons.

Referring to the fact that the "bevel gear bicycle still remains entirely an American product," Professor Sharp adds that "now that complete bevel gears—consisting of bottom bracket, hub and bottom stays—are supplied by components makers on the other side of the Atlantic, it may sometimes repay the small maker here to import a gear and build it up into a bicycle."

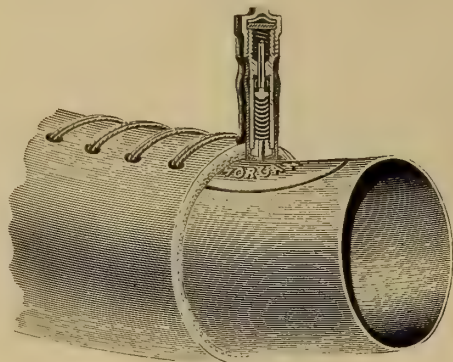
Did not Wait the New Century.

At least there is an end of "fin de siecle" as applied to bicycles and kindred parts, no one being anxious to write himself so far behind the times as this. It is a fact, however, that the phrase fell into marked disfavor before the incoming of the new century, it having become so hackneyed that it was dropped by almost unanimous consent.

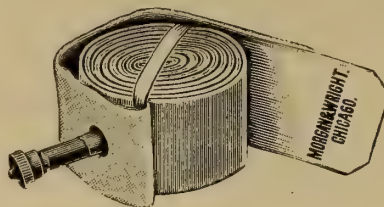
MORGAN & WRIGHT TIRES
ARE GOOD TIRES

MORGAN & WRIGHT TIRES
ARE GOOD TIRES

MORGAN & WRIGHT TIRES AND TUBES.



The well-known Morgan & Wright double-tube tire is the most economical and has given the greatest satisfaction of any bicycle tire put upon the market. The inner tube or air chamber can be easily pulled out and repaired and the casing vulcanized. It is made in all sizes and styles in smooth tread.



We furnish the Standard Inner Tube in No. 1 and No. 2 qualities only.



We also make a full line of pneumatic Automobile Tires, in 2 1-2 and 3 inches, for 26 to 36 inch wheels.



The above cut shows a sectional view of the new Morgan & Wright single-tube tire. The tire has a continuous air chamber, and the process used in vulcanizing this air chamber insures the rider against trouble on account of porous or imperfectly cured tires. Made in all sizes and diameters from 24 inches up, with smooth tread.

MORGAN & WRIGHT GUARANTEE.

We shall continue in 1901 our custom of repairing all tires of our manufacture free of charge, except when tires are old or worn out.

We shall replace defective parts when, in our judgment, the defect is from our fault. In no case will we replace when worn out in service or injured by accident.

Make your request direct to Morgan & Wright, Lake and May streets, Chicago, and not through the maker of your wheel.

Express charges on tires must be prepaid in every instance. If you ship by mail, register the package. If return by registered mail is desired, postage at the rate of 1 cent per ounce must come with request for repairs, and 8 cents besides for registry.

Do not send the wheel with the tire.

See that every package sent has your full address (name, town, county and state) securely fastened to the package.

**MORGAN & WRIGHT,
CHICAGO.**

NEW YORK BRANCH,
214-216 W. 47th Street.

BOSTON BRANCH,
80 Batterymarch Street,
Near Fort Hill Square.

MORGAN & WRIGHT TIRES
ARE GOOD TIRES

MORGAN & WRIGHT TIRES
ARE GOOD TIRES

DUNLOP "MONSTER"

British Cycle Maker Finally Discovers that it has Fattened at his Expense.

At last the secret is out—the cause of Great Britain's decline as a cycle exporting nation has been found. As a consequence the world may expect soon to see the old-time figures reached, for will not the cause of all the trouble—having at last been located—be removed?

It is that dreadful monopoly, the Dunlop Tire Co., with its \$20,000,000 of capital, that caused exports to drop to almost nothing and the home trade to suffer such terrible disasters. So, at least, says "A Cycle Manufacturer" in an English journal; and if he does not know who does?

Referring to the assertion that the Dunlop Co.'s profits last year of nearly \$2,000,000 cast a "Ray of Sunshine" into the trade—presumably as indicating that it might go and do likewise—this unfortunate manufacturer says:

"It struck me that if the full significance of the enormous profits which are being realized in the tire trade were compared with the losses and problematical profits which have been earned in the cycle trade—or, in other words, by the purchasers of the said goods—a much more suitable heading could have been found.

"I do not think it has been fully realized—at any rate by the public—that in the severe and inevitable competition that has followed the 'boom,' in which we have dragged down with us to the verge of ruin the tube and chain trades, that the tire makers have been fattening upon us like vampires. Do you know, sir, that upon high-class tires—say, the Dunlop and Palmer—we are compelled to pay the same prices to-day as in the time of the 'boom,' and that attempts have been made to raise these upon us for next season; which happily, I trust, by the intervention of the Cycle Manufacturers' Trade Protection, will be frustrated?

"Further, perhaps, you may not be aware that for the cheaper grade tires—say, for example, the Clipper and the Warwick—the prices have been raised upon us fully 10 per cent over the period of the 'boom,' or, at any rate, the prices obtainable two years ago. Furthermore, I am afraid it is not generally understood that this 'Old Man of the Sea,' which we are unable to shake off, has completely strangled our colonial and Continental trade. Instead of 'A Ray of Sunshine,' forsooth! a more suitable heading for your remarks upon the Dunlop balance-sheet would have been 'The Knell of Doom.'

"For the benefit of your readers I would suggest to you that for your next issue he should get out in separate columns the results of the profits and losses made in the cycle trade, as disclosed in this year's balance-sheets—I mean, of course, genuine users of tires, and not parts makers. I would further suggest that these should be placed

in separate columns, side by side with the profits made by the leading tire makers, and a suitable heading could be found from the name of one of the songs from 'Les Cloches de Corneville'—'Look on this, and look on that!' Perhaps he may be able to say how much longer the long-suffering shareholders of cycle companies will consent to pay tens of thousands per annum for the privilege of making machines for the purpose of selling the tires of these firms at prices at least 100 per cent over and above their commercial value.

"Candidly, I do not think 'A Ray of Sunshine' will be seen until the patents which support these overwhelming monopolies have expired, and the trade will be able to purchase tires the same as they do everything else—at their legitimate commercial value. It is a consummation devoutly to be wished that a few of us may survive to see this era of emancipation from an incubus which has done so much to cripple the trade."

Motors Five Years Ago.

One of the strong points of the motor bicycle of to-day is its adaptability to ease of handling. There are some enthusiastic advocates who assert that when running it is much steadier than a pedal-driven bicycle. This view may be a trifle exaggerated, but there is practically no dissent from the assertion that the motor machine steers as well as the ordinary type, while the mounting and dismounting will give no trouble if even reasonable care is taken.

A comparison of this ease of handling with the trouble experienced even five years ago illustrates the tremendous advance in motor construction that has taken place. The experience with one of the early machines is thus related by one who had the pleasure (?) of trying it:

"This particular monstrosity in motors," he says, "was in Melbourne when I made its acquaintance, and where its arrival and first public appearance made a great sensation. There is a photograph in existence taken of the crowd outside Melbourne Postoffice when the bicycle first essayed to start, and the picture shows a surging multitude, a great sea of heads.

"The writer and two friends used to try to make this motor go. It took three to do it, one to sit on the bicycle and one to hold it up on either side. It was most essential to keep the machine straight until it got fairly going, for if allowed to tilt its great weight carried all before it, and down went the unfortunate man on that side. Once going, all went well until the rider wished to dismount. Then there were anxious moments, and the two footmen would run to the rescue, and the mighty traction engine would be gradually slowed down, its supporters on either side holding on like grim death.

"As a novelty and crowd drawer it had some charm, but as a pleasure vehicle it was not a success, and from an athletic point of view the exercise was excessive and somewhat too dangerous."

RIGHTS UPHELD

New York Court Once More Rules in Favor of the Wheelman.

In reversing judgment of the Appellate Term and affirming that of the Municipal Court in favor of the plaintiff, the Appellate Division of the New York courts merely added another to the long list of decisions giving to cyclists protection on the public highways.

It appears that while Henderson Hill was riding his bicycle on the morning of September 27, 1899, down Park avenue, from Sixty-fifth street, toward Sixty-fourth street, New York City, nearer to the sidewalk than to the tunnel in the centre of the avenue, he saw a carriage, also facing south, standing by the sidewalk, half a block away. He was going about five miles an hour.

When he was five or six yards from the carriage, near the centre of the street, the driver faced his horses right out into the avenue and started to turn directly around. Hill claimed in his suit against William Moebus, the owner of the carriage, that it was impossible for him to get out of the way. He rang his bell, but the tongue of the carriage struck his head, the wheel was smashed to pieces, and he was injured in his stomach.

John Feddick, the coachman, testified he first saw Hill when four feet away, and shouted, but it was too late; then he stopped his team, but the plaintiff hit the side of the pole.

In his opinion Justice O'Brien held that the questions of negligence and contributory negligence were issues of fact for the Judge of the Municipal Court to pass upon.

"While using due care in riding his bicycle along the avenue, giving notice of his approach by ringing his bell, plaintiff was intercepted by defendant's servant suddenly and without warning, as proper attempt to guard against injury to others, turning his horses abruptly into the middle of the narrow roadway, with the result that the plaintiff was seriously injured. The plaintiff was on the proper side, lawfully using the avenue in riding his bicycle.

"Without determining the right of the driver to turn around on the west side of the avenue, it is certain that he could not do so in violation of the rights of others, who were properly using that side, and were justified in proceeding upon the theory that a carriage facing south would not, without warning or notice, make an abrupt turn from the curb where it was standing to go in an opposite direction."

To Acquire a Motorcycle Education.

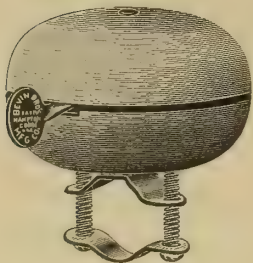
"Motocycles and How to Manage Them." The name explains the nature of the book. Price 75 cents. For sale by The Goodman Company. * * *

OUR SHOW-

ing of bells, lamp brackets, toe clips, trouser guards and the like

IS SO ATTRACTIVE

in price, quality, appearance and variety that there are few in the trade whom we have not pleased or who we cannot please if given the opportunity.



Have YOU obtained catalog and quotations?

BEVIN BROS. MFG. CO., EAST HAMPTON, CONN.

(Business founded 1832.)

The Long and Short of it.

To the Editor of the Bicycling World.

Messrs. C. G. Fisher & Co., of Indianapolis, Ind., in the Bicycling World of December 27 have seen fit to compare the new gear for the Tailored bicycle with my highness and crankiness as they remembered me in the old racing days. While we are so far back as that I wish to state for the benefit of this concern that I believe what is known as the "standard gear" is about on a par with the records I won in the eighties.

I am willing, however, to attempt to enlighten your correspondents, as they ask for it. The Tailored Orient, as I understand it, and as the name implies, is made to measure, and whether it be for Slim Jim or Fat Pat the bicycle is fitted to the peculiar requirements of each individual.

English bicycle history has proven exactness in measurement to have obviated all experimental dabbling as to lengths of crank and sizes of gears, and has given us something to go by, so that a rider can have but little difficulty in selecting a combination to fit his needs.

As to length of cranks, for a 6-foot rider an 8-inch crank seems to be the best. That is, the crank should be about one-ninth of the rider's height. Short riders, say, 5 feet 3 inches, should use 7-inch cranks; riders of an average height, say, 5 feet 8 inches, 7½-inch cranks.

The gear should be 12 to 14 times the length of crank. For instance, a man using 6½-inch cranks and 65 gear can get the same speed, with no more pressure on the pedals, with 8-inch cranks and 80 gear.

Knowing these facts, a dealer will have little difficulty in equipping a rider of any size or shape. With cranks graduated by quarter inches, as I understand the Waltham Mfg. Co. will furnish them, the lengths can be furnished to a nicety.

Messrs. C. G. Fisher & Co. can now see that long legs are no joke as applied to a Tailored bicycle. HOYLAND SMITH,
New Bedford, Mass.

Would Open His Eyes.

That eccentric but enterprising individual who early in the last century raised a stir by his repeated attempts to travel in a carriage drawn by kites, and whose efforts to steer clear of ditches and spreading tree branches must have led people who saw him to feel thankful that they could walk, would be considerably astonished could he revisit the earth now and receive ocular demonstration of the progress that has been made in "locomotion progress," as one pedant has termed the development of the motor vehicle.

Before Columbus Sailed.

Under the dazzling light of modern research the date of the first mechanically propelled vehicle is being set back further and still further. It has now been ascertained that in 1479 a Monsieur Gilles de Bom presented the city of Antwerp with a mechanically propelled vehicle and got a medal for it.

If you want to

MAKE MONEY FAST

and at the same time have enthusiastic customers, handle the wonderful

CUSHION FRAME BICYCLE.

Every dealer who has intelligently introduced the Cushion Frame the past season will tell you that it has been an UNQUALIFIED SUCCESS. It has stimulated trade, having brought great numbers of riders who had abandoned bicycling back into the ranks, and added inexpressible comfort to those who daily use the wheel for business or pleasure. The Cushion Frame is not attached to bicycles that sell at a less price than \$50 retail, consequently, when a dealer sells a Cushion Frame bicycle he makes a fair profit and he gets an enthusiastic customer in addition.

Don't fail to get Cushion Frame models from your manufacturer; ride one of them yourself and let others do so. "The Cushion will do the rest."

HYGIENIC WHEEL CO.,

220 Broadway, New York.

Owners of the Cushion Frame Patents.



SARTUS BALL RETAINER (The Original)

BEST ANTI-FRICTION.

618 BROADWAY, NEW YORK.

OUR
CRANK
HANGER
DOES
IT.

The
Racycle

DOES
WHAT?
MAKES
IT RUN
EASY.

WHY THE MORROW?

LET THE ANSWER BE

in the words of others===in the words of a manufacturer as reported to us by disinterested and unquestionable authority:

"Why don't I save money by using a coaster-brake cheaper than the Morrow? Simply because the Morrow helps the sale of my bicycles. Too many people believe all coaster-brakes are Morrows and I'd have to do too much explaining and apologizing if I used any other, and life is too short and time and reputation too precious for that sort of thing."

And you all know it is true, too.

Why waste time and reputation fooling with the so-called "just as goods"?

ECLIPSE MFG. CO., ELMIRA, N. Y.

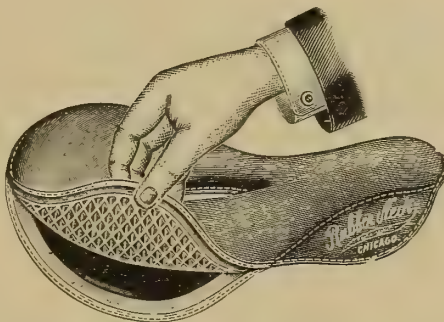
N. Y. OFFICE, 105-107 CHAMBERS ST.

Cycle Show, Space 30.

RUBBER=NECKS !

THE ONLY SADDLES

ALL HIGH GRADE
WHEELS
ARE EQUIPPED
WITH THEM.



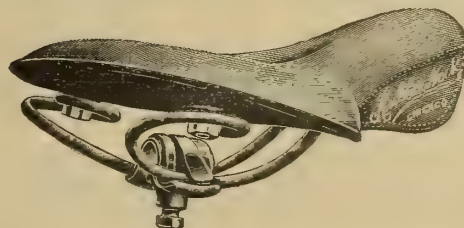
THAT HAVE
STOOD THE TEST
OF TIME.

Manufactured by

The Bunker Saddle Co., 63-71 Milwaukee Ave., Chicago.

WE ALSO SELL PLEW AND NABER SADDLES.

SEND FOR CATALOGUE.



1901

will be a

CUSHION FRAME YEAR.

Practically all the manufacturers of High Grade bicycles in the United States will build Cushion Frame models next season.

EVERY DEALER

should supply himself with these wonderful

SELLERS.

No bicycle ever made can compare with the Cushion Frame for

"COMFORT WITH SPEED."

Ride one yourself and you will be convinced. Let others ride it and you will have quick and enthusiastic customers.

Order from your manufacturers at once.

HYGIENIC WHEEL CO.,

220 Broadway, New York.

Owners of the Cushion Frame Patents.

Anent Short Circuiting.

Short circuiting is something which all motocyclists are liable to have happen to them, particularly in wet weather, and it would seem as if measures could be taken that would effectually prevent it. This will in all probability be done in time, but it is interesting to reflect that the same helplessness in the matter is felt in other and infinitely larger electrical enterprises.

For example, the consulting electrical engineer in charge of the installation of the electrical plant of the New York elevated roads recently had this to say on the subject:

"In the operation of a great plant of this type nothing is more important and nothing more difficult to attain than freedom from interruptions of the supply of power. What we are trying to do is to maintain, ready for use at all times, day or night, along a third rail seventy-five miles in length, power greater in amount than could be developed by an army of 3,000,000 men, working harder than such an army possibly could work, even for eight hours, and we are attempting to do this by means of huge electrical machines and many miles of conductors, in the installation of which a defect so small as to be imperceptible to the eye may produce a short circuit, which will interrupt the entire service, unless we have adequately provided against such a contingency."

Going West?

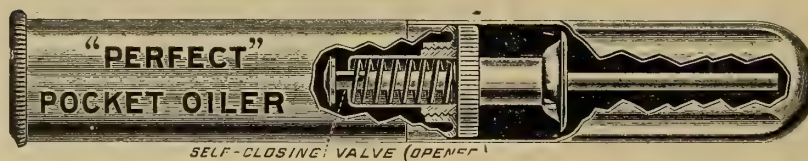
If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

Low Rates to the South.

Excursion tickets at reduced rates are now being sold by the Chicago, Milwaukee & St. Paul Railway to the prominent resorts in the South, including Jacksonville, Fla., Mobile, Ala., New Orleans, La., Savannah, Ga., El Paso, Tex., which are good for return passage at any time prior to June 1st, 1901. Information regarding rates, routes, time, etc., can be obtained on application to any coupon ticket agent of the Chicago, Milwaukee & St. Paul Railway. ***

"PERFECT" OILER.



25c.

A few of MANY UNSOLICITED Testimonial Letters.

- "WE VOTE IT A SUCCESS."—Pope Mfg. Co., Hartford, Conn.
- "WE ARE MUCH PLEASED WITH THEM."—Warwick Cycle Mfg. Co., Springfield, Mass.
- "THEY GAVE THE BEST SATISFACTION OF ANY OILERS WE SOLD."—Keller & Walker, Moline, Ill.
- "JUST THE THING I HAVE WANTED FOR YEARS."—F. E. Worth, Indianola, Iowa.
- "THE ONLY OILER THAT DOES NOT LEAK."—W. D. Anderson, Dallas, Texas.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.

YOU CAN'T TELL THE AGE OF A BICYCLE

by the teeth of its sprocket but you can tell its quality by the chain that runs over them.

If it's a Duckworth



you may be sure that the makers of the bicycle are not building on the Cheap John plan. If the bicycles you handle are not fitted with Duckworths, specify that chain when you order. If it is refused you, you will have a certain cue to the quality of the wheel. In the Duckworth factory, it is not how cheap, nor how many, but how good. Write for catalogue and prices.

DUCKWORTH CHAIN & MANUFACTURING CO., Springfield, Mass.

Selling Agents, BRANDENBURG BROS. & WALLACE, New York and Chicago

FRAME PARTS AND COMPLEMENTS

“In sets ready to build.”

In frames all built ready to enamel.

In frames all enameled ready to assemble.

**EVERY PART MADE AND GUARANTEED IN ONE FACTORY
BY RESPONSIBLE MANUFACTURER.**

Hubs, Pedals, Crank Hangers,

Seat Posts, Chain Guards,

Flush Head Sets,

For $1\frac{3}{8}$ in. Head, 1 in. Stem.

FOR ONE INCH

Seat Post Clusters, Heads,

Eccentric Adjusters, Crowns,

Complete Sets and Many Styles.



ALL KINDS DRAWING AND STAMPING WORK.

SPECIAL FACILITIES FOR SCREW MACHINE PRODUCTS EVERY KIND AND DESCRIPTION.

JOHN R. KEIM, BUFFALO, N. Y., U. S. A.

Two Weeks' Exports.

Exports of bicycles and cycle material from the Port of New York for week ending January 8, 1901:

- Brazil—1 case bicycles and parts, \$36.
 - British Australia—102 cases bicycles and parts, \$4,923.
 - British Guiana—2 cases bicycles, \$70.
 - British West Indies—13 cases bicycles and material, \$284.
 - British Possessions in Africa—6 cases bicycles and material, \$574.
 - Central America—2 cases bicycles, \$49.
 - Chili—8 cases bicycles and material, \$244.
 - Cuba—7 cases bicycles and material, \$262.
 - Copenhagen—288 cases bicycles, \$6,480; 31 cases bicycle material, \$1,564.
 - Dutch Guiana—19 cases bicycles and parts, \$462.
 - Havre—29 cases bicycles, \$520; 18 cases bicycle material, \$863.
 - Liverpool—104 cases bicycles, \$870.
 - London—4 cases bicycles, \$185.
 - Mexico—2 cases bicycles and parts, \$25.
 - New Zealand—61 cases bicycles and material, \$1,269.
 - Porto Rico—8 cases bicycles, \$178.
 - Rotterdam—10 cases bicycles, \$179; 18 cases bicycles, \$701.
 - Santo Domingo—1 case bicycles, \$28.
 - St. Petersburg—11 cases bicycle material, \$133.
- Exports of bicycles and cycle material from the port of New York for the week ending January 1, 1901:
- Antwerp—1 case bicycles, \$30; 73 cases bicycle material, \$1,600.
 - Amsterdam—49 cases bicycles, \$1,513.
 - Argentine Republic—5 cases bicycles and parts, \$293.
 - British East Indies—43 cases bicycle material \$3,718.
 - British Guiana—4 cases bicycle material, \$411.
 - British West Indies—23 cases bicycles and parts, \$759.
 - Central America—2 cases bicycles, \$63.
 - Cuba—11 cases bicycles and material, \$432.
 - Fiume—1 case bicycle material, \$55.
 - Glasgow—3 cases bicycles, \$90.
 - Gothenburg—1 case bicycles, \$30.
 - Genoa—2 cases bicycles, \$50; 18 cases bicycle material, \$729.
 - Hamburg—34 cases bicycles, \$1,280; 12 cases bicycle material, \$323.
 - Liverpool—5 cases bicycles, \$150.
 - Lisbon—2 cases bicycle material, \$60.
 - London—54 cases bicycles, \$778; 32 cases bicycle material, \$1,388.
 - Naples—1 case bicycle material, \$10.
 - Rotterdam—4 cases bicycles, \$103; 27 cases bicycle material, \$960.
 - Southampton—8 cases bicycles, \$400.
 - Stockholm—1 case bicycles, \$35.
 - United States of Colombia—1 case bicycle material, \$6.

Austria is Progressive.

Postmen in Vienna and Budapest are, in a number of cases, supplied with motor tricycles, on which they make their rounds. No less than four of these machines were noticed in a five minutes' walk.

Automatic Air Circulation.

For a considerable time to come efforts will be made to obtain the benefits of water cooling with regard to motors without its attendant complications. As applied to motor bicycles—and to most tricycles and quads as well—the latter course is quite out of the question, and the only thing left is to get along without it in the best way possible.

A German engineer, however, has devised a new method of constructing the motor so as to obtain a greatly increased benefit from the air for cooling purposes. If it turns out in practice as well as it looks on paper the problem of cooling small motors will be pretty nearly solved.

The arrangement is a very simple one, and the wonder is that nobody has thought of it before. It is an automatic circulation of air round the cylinder walls; the air passing along the passages carries off the heat.

The motor differs in outward appearance from others only in having a funnel on both sides, whose opening goes toward the front of the motor. Between the radiator body and the cylinder walls is a hollow space through which two channels run spirally round the cylinder. The air enters through the funnels, and is by its own force pressed downward through the channels until it leaves at the bottom of the radiator. The effect is very simple. The forward movement of the car catches the air, and as soon as it has passed it leaves at an orifice below. The air current has great energy, and easily cools the walls of the cylinder, especially as it acts in conjunction with the radiating ribs which carry a part of the heat off in the usual way.

Several trials made with light vehicles fitted with the new cooling apparatus, whose price is only quite small, showed that such motors can be used at high speeds, over long and rough distances and carrying a good weight, without the risk of overheating or any similar effect. The method can be recommended for imitation, and all constructors ought to make at least a trial with such a simple, cheap and effective appliance, which can be improved, but whose principle is certainly correct. It might, for instance, be better to take the air in from the bottom of the cooling passage and discharge it at the top, when the natural tendency of the hot air to rise would materially assist the circulation.

Runs Without Noise.

A gasoline motor which is said to run smoothly and without noise has recently been put on the market by a German firm. Such constructions have been tried before, but this is the first record of a vehicle of the kind having been used for travelling long distances. Chains, belts and similar details, which cause much noise and unnecessary friction, are absent, and the vehicle is driven by friction coupling, which permits the motor to make twenty-six miles per hour. One wheel regulates the vehicle, and the electromagnetic ignition has been improved, so that the drive acts on the first turn of the motor.

The Retail Record.**CHANGES.**

- Erie, Pa.—F. C. Smith succeeds Dickson & Smith.
- Owosso, Mich.—D. Blair succeeds Niles T. Wiggins.
- Corway, Ohio—Redd & Rummel succeeds F. G. Redd.
- Ontario, Cal.—Lerch & Co. succeed Lerch & Armstrong.
- Chanute, Kan.—S. Winfield succeeds Winfield & Barton.
- Mount City, Mo.—J. S. Parker succeeds Parker & Wright.
- Van Wert, Ohio—Kanke & Alspach succeed J. H. Kanke.
- Beardstown, Ill.—Mohlman Brothers succeed H. J. Mohlman.
- Reading, Pa.—Nuebling & Tyson succeeds Globe Cycle Company.
- Anaheim, Cal.—B. V. Beebe succeeds Beebe & Des Granges.
- Charlotte, Mich.—Bare, Gillett & Rubison succeed Bare & Gillett.
- St. Joseph, Mo.—C. E. Bates succeeds Diamond Supply Company.
- Indianapolis, Ind.—Charles Koehring succeeds C. G. Fisher & Co.
- Phoenixville, Pa.—R. G. Shaffer succeeds Phoenixville Bicycle House.
- Kaufman, Tex.—Carlisle, Beatty & Co., succeed A. E. Carlisle & Co.
- Bessemer, Ala.—The Marvel City Bicycle Co., removed to Steiner Block.
- Beeville, Tex.—Burrows Hardware Company succeed Burrows Brothers.
- Whitehall, N. Y.—Wood Hardware Company succeed Wood & Hotchkiss.
- North Manchester, Ind.—Jonas L. Wavnel succeeds Charles B. Ohlinger.
- Oklahoma City, Okla. Ter.—Armstrong Hardware Company succeeds Gilpin & Jacobs.
- Wakefield, R. I.—Crescent Cycle Company, L. W. Tucker has withdrawn and H. R. Tucker will continue business under the same name.

NEW STORES.

- Fortuna, Cal.—Frank Sitton, Main Street.
- Toledo, O.—Norman De Veaux, Jefferson street.
- Birmingham, Ala.—Birmingham Electric and Cycle Supply Co., 1,726 First Avenue.

FIRES.

- Savannah, Ga.—Oakman & O'Neill, Drayton Street, slight loss.
- Milwaukee, Wis.—F. Former, No. 1,002 Galena Street; damage, \$1,200.

**THE NEW "AUTO" BICYCLE PUMP.**

Patented Oct. 9th, 1900. The barrel is 15 inches long and 1 inch in diameter. Will inflate the heaviest automobile tire. Provided with our patented air tight swivel. Has solid base and will stand alone. The finest and strongest pump made. Sample sent on approval. Electrotypes for catalogues furnished free. Handled by all jobbers. Mention this paper.

D. B. SMITH & CO., Utica, N. Y., U. S. A.

YOU CAN'T WIN WITH- OUT HOLDING THE CARDS.

Here is a "Straight Flush" for the game of 1901.

A bicycle that is geared and cranked to the measurement of the individual.

TAILORED ORIENT

The racer, a record breaker like its predecessors, to bring the mile to a minute.

ORIENT MILAMINIT

A chainless wheel with both cushion frame and coaster brake.

ORIENT CHAINLESS

The only thoroughly tested and practically perfect two-wheel motor machine on the market.

ORIENT MOTOR BICYCLE

And a three or four wheel motorcycle rounds out the full measure of completeness.

ORIENT AUTOGO

A COMBINATION THAT REQUIRES NO "BLUFF."

WALTHAM MFG. CO.,
WALTHAM, MASS.

Some Shortcomings of Motocycles.

Many of the shortcomings of motorcycles having now been overcome, the time appears to be ripe for others almost as serious to receive attention.

Designers will do well, says an English journal, to preserve the simplicity of the present type of machine while increasing the range of power and speed of the engine. We are alluding now to the crudeness (due, no doubt, to the early stages of a new industry) in details of variable speed and transmission gears, which are responsible for a loss absorbing from 25 to 50 per cent of the engine power!

It is in this direction that we think the cycle engineer should have the pull over the ordinary engineer, who mostly has but a feeble idea of the utility of ball bearings and other niceties of detail which have brought the modern cycle to such a high state of efficiency in the matter of output per initial power. It is in this respect, too, that the French—to whom we generally look for authority in motor matters—are woefully behind us, and we are pleased to think that two English vehicles—the Napier and the Wolseley—show less loss in transmission than any of their foreign competitors. In both cases the designers have had a great practical experience of cycle construction and detail.

The question of the ratios of change gears, too, is a serious one; if the change from one gear to another is slight, a two or even a three speed gear is hardly sufficient; if the change is great the engine will race, heat will rise, and the circumstances of the generation of the motive spirit be suddenly altered.

To judge from the published list of patent applications, quite a number of inventors have been at work on this variable speed question; but in most cases we only find a rearrangement of the old hackneyed devices—the all important ones of pressure on bearings, side thrusts and reactions, which involve expenditure of power, are generally neglected.

What we do want to see is a good gear with a wide range, without passing through a crowd of counter shafts or pinion studs which each act as a small counter shaft, so that the speed of the engine can be kept comparatively even—in other words, an every speed gear. Nor do we believe that our wish is far from realizable.

Accident Statistics.

According to figures given out by the Travellers' Insurance Co., the bicycle has for the first time proved to be more productive of accidents than the horse. As the respective figures were 53 to 48, however, out of a total of 1,323 accidents, and the probability is that the proportion of cyclists insured was greater than that of horse users, there is plainly no cause to jump to the conclusion that the bicycle has become more dangerous than formerly.

ELFIN
BICYCLES

The 1901 Elfin is A New Model

—a little lighter, a little stronger, a little better than ever before.

It has been on exhibition all the week at the Madison Sq. Garden Cycle Show, New York.

Elfins are the

Standard
Juveniles
of the World

—as everybody knows. You can get a higher price for the Elfin than any other Juvenile—it is better made, lasts longer—and is the ONLY Juvenile that is genuinely a child's bicycle—not a makeshift.

Send for catalog.

Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.

LITTLE ACORNS

ARE NOT THE ONLY PRODUCERS
OF GREAT OAKS.

HERE'S ONE,
the greatness of which
rests in not only its price
but its quality, and

Here's its running mate—
the Newark "New Pad-
ded." It's original; it's
rich in appearance; it is
indestructible; it has no
sewed edges.



PRICES TO THE TRADE ARE EYE-OPENERS,

as also are

OUR FIGURES ON SADDLE-CLAMPS.

NEWARK CYCLE SPECIALTY CO., NEWARK, N. J.

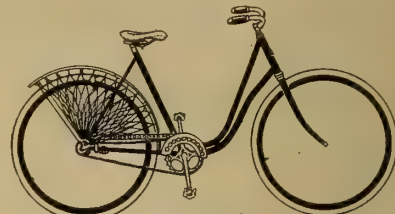
EXPLORER BICYCLES.

BUILT ON HONOR.

This is our sixth year in business, and we have prospered. We are making what we consider an elegant line of high grade wheels, and we pursue a live-and-let-live policy, working hand in hand with our patrons.

\$30.00.

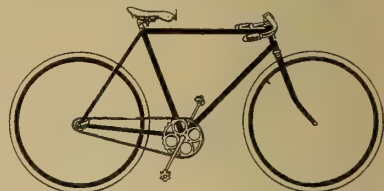
Our Light Roadsters, listing at \$30.00, in Men's and Ladies' Patterns, are well and honestly made. We use nothing but the best material throughout. Shelby Seamless Tubing, one-piece Hanger, drop forged Crown, Adjustable Bars, Kokomo Tires, Sager Saddles, and we enamel in either Crimson or Black.



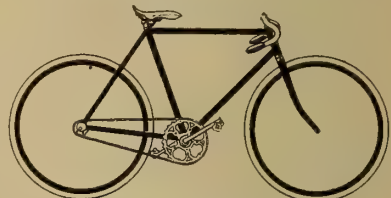
EXPLORER (LADIES) No. 30.

\$40.00.

Our Explorer Special at \$40.00 is a perfect beauty, so many of our agents tell us. Enameled in Orange, with an Olive Head. Extension Adjustable Bars, Troxel Saddle, one-piece Hanger, and choice of M. & W., Hartford or Goodrich Tires. This wheel is equipped with a Morrow Coaster Brake.



EXPLORER No. 30.

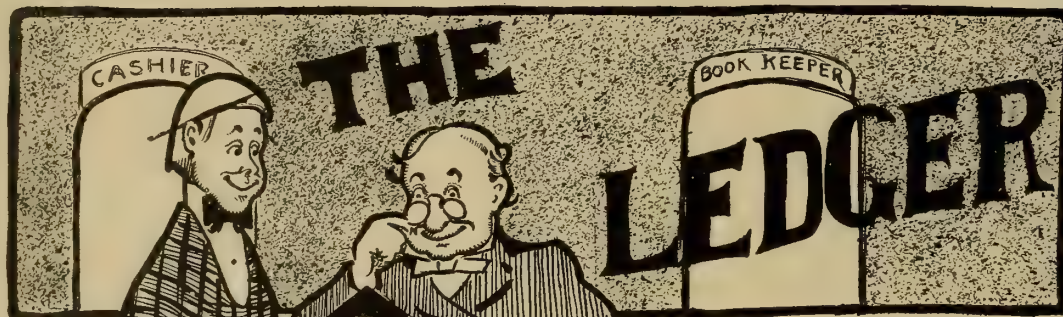


EXPLORER SPECIAL.

Any energetic dealer can make his living on this line alone. We have room for a few more good retail customers. Our discounts are such as afford the agent a good, clean, handsome profit. Drop us a line.

EMPIRE STATE CYCLE CO.,

ADDISON, N. Y.



OF THE
**Jobbers
and
Dealers**

WHO LAST YEAR HANDLED

Goodyear Tires

SHOWED A PROFIT.

This is because there is a margin of profit in these tires.

"A word to the wise is sufficient."

Electros and prices upon application.

The Goodyear Tire & Rubber Co., Akron, Ohio.

KEATING

World's Lightest

World's Strongest

World's Speediest

BICYCLES

THE FAVORITE MODEL 90

With or Without the Curve.

Equipped with

The Keating Noiseless Double
Roller Chain.

THE MOTOR BICYCLE THAT
IS A MOTOR BICYCLE.

WEIGHT 75, lbs.

We want good agents' Write for
prices on above and our
cheaper grades.

Keating Wheel and Automobile Co.,

MIDDLETOWN, CONN.

Adapted to Present Types.

While it is decidedly preferable, if on the score of simplicity alone, to dispense with water cooling devices on motorcycles—and as a rule it is quite possible to do so—there are cases where some means of preventing heating of the motor beyond that afforded by the ordinary motor flanges is desirable.

Possibly the water cooled cylinder head which is the easiest of adaptation to the De Dion and Bouton and Aster air cooled motors is that manufactured by MM. Brissard et Fils, Paris, and for which a steady demand is springing up in France, says an English contemporary.

Its employment on either of the two types of engine mentioned gives rise to no complications, for it is by means of the existing columns that the attachment is effected. Both the inlet and exhaust valves of this cylinder head are large, and are perfectly cooled by a steady stream of water which, coming direct from a reservoir placed some ten centimetres above them, passes around the head of the cylinder to return subsequently to the tank. This circulation of water is effected by the thermo-siphon system, and generally a five-metre radiator is carried. By the use of the radiator five or six litres of water is all that is required, but if dispensed with, the water supply must be raised to ten or even twelve litres. The cooler is placed below the level of the cylinder head, for the difference in height ensures an active circulation of the water.

A number of $1\frac{3}{4}$ and $2\frac{1}{4}$ horsepower De Dion motors have been successfully converted into engines developing 3 horsepower by simply changing the cylinder and piston and attaching the Brissard "culasse," without in any way altering the length of stroke or weight of flywheels. The question of efficiently cooling ribbed motors is undoubtedly a most interesting one, for this type of engine has many advantages over the water jacketed motor. Less expensive to build, it is much lighter than the water cooled engine, and, in the smaller sizes, it is but during the ascent of hills, or while the car or cycle is running slowly, that its tendency to overheat is at all pronounced.

It is, therefore, but a slight modification, which should render the smaller sizes, at any rate, ideal in respect of cooling efficiency, and it is more than possible that the improvement would, at the same time, make possible the construction of powerful ribbed motors. I do not think that the Brissard system has yet been tried upon large air cooled motors, but upon the smaller sizes it is undoubtedly very efficient.

Cements Reduced to Cinders.

About \$3,500 loss was entailed by a fire which broke out last week at the factory of the Eclipse Cement & Blacking Co., 1,238 Belmont avenue, Philadelphia. The concern manufactured, among other articles, cements for the bicycle trade.

AT THE CYCLE SHOW

RELICS OF THE PAST CENTURY

WILL BE NUMEROUS.

They will be shamelessly marked with twentieth century name-plates, and the unwary will be caught and deceived.

BE WARY.

If, at the show, or afterward,

YOU SEEK GENUINE TWENTIETH CENTURY
BICYCLES AT TWENTIETH CENTURY
PRICES,

SEEK OUT THE



AT STAND No. 27.

They list at \$25, \$30 and \$35, and weight but 21 and 24 pounds, but

WE ASSERT

and are prepared to demonstrate that better bicycles are not offered anywhere at any price.

Schrader Universal Valve.

(Trade Mark, registered April 30, 1895)

NOTICE.

Manufacturers of Bicycles, Jobbers and Dealers:

In order to facilitate the obtaining of

PARTS of the
Schrader Universal Valve,

I have concluded to sell parts only to the general trade.

Parts 99-1, 99-2, 99-3, 99-4, may be had from all the makers, or from A. SCHRADER'S SON. Price List and description of parts sent on application.



99-1

99-2

99-3

**SIMPLE AND
ABSOLUTELY AIR-TIGHT.**

Manufactured by

A. SCHRADER'S SON

ESTABLISHED 1844.

30 and 32 Rose St.,

New York, U. S. A.



WE HAVE

A PROPOSITION ON TIRES

THAT IS LIKELY

TO MAKE ANY JOBBER OR DEALER

"FEEL GOOD."

SEE US

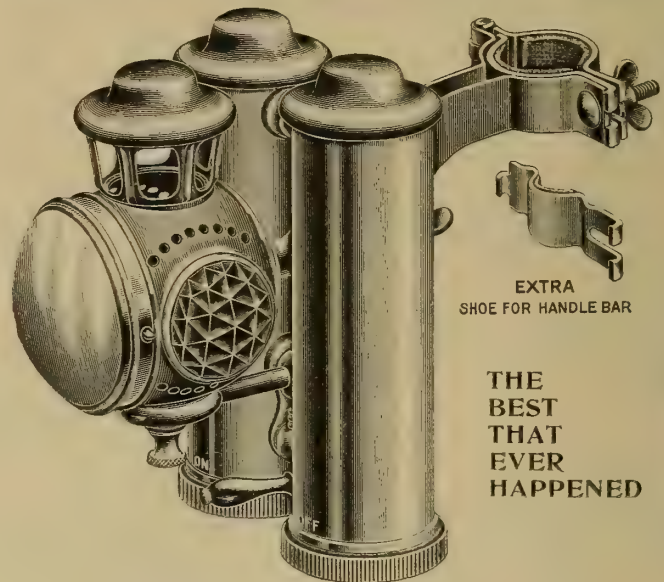
AT THE CYCLE SHOW, SPACE 233,

OR ADDRESS

INTERNATIONAL AUTOMOBILE AND VEHICLE TIRE CO.,

346 BROADWAY, NEW YORK.

WHERE'S — THE ONE THAT'S
JUST AS GOOD ... ?
Echo Answers WHERE ?



EXTRA
SHOE FOR HANDLE BAR

**THE
BEST
THAT
EVER
HAPPENED** !

**THE SAME OLD DUPLEX,
DIFFERENT AS EVER.**

All other styles have been more or less alike in construction, and are much the same in operation—so, stop costly experimenting and stock up with the old reliable **DUPLEX**—that's different.

THE MATTHEWS & WILLARD MFG. CO., WATERBURY, CONN.

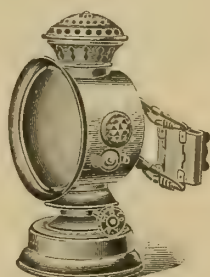
Send for agency proposition.

We Give No Chromos or Automobiles

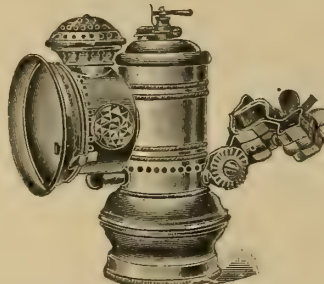
**WITH OUR LAMPS;
WE PUT FULL VALUE INTO THE LAMPS THEMSELVES.**



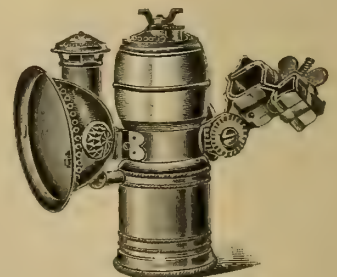
"QUEEN"—Oil



"U. S."—Oil



"BRILLIANT"—Gas.



"RADIANT"—Gas.

IF YOU WANT LAMPS OF THE SORT, WRITE FOR CATALOGUE AND PRICES.

MANHATTAN BRASS CO.,

332 E. 52nd St., New York City.

'Frisco Dealer's Blighted Christmas.

San Francisco, Dec. 27.—Busy, bright and gay as is San Francisco at every Christmas season, it is doubtful if ever before, remarked a veteran wheelman of the city, there was greater activity in the holiday trade than that which has enlivened the streets and gladdened cycle dealers and tradesmen generally during the week next preceding the last Yule-tide of the nineteenth century.

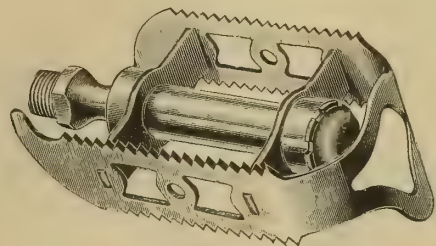
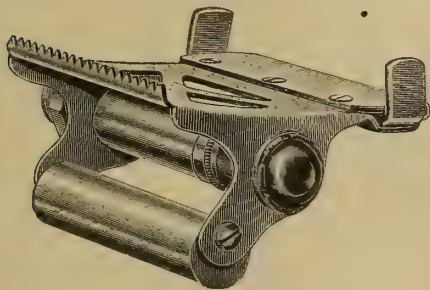
One exception to this gladdening influence, however, is to be noted, and because thereof numbers of wheelmen and dealers, with the best of meaning, sent their messages of commiseration to this one exception, William B. Morrill, the popular San Francisco agent for the Eagle and Orient. This prosperous agency ran out of machines in the month of November, but had every reasonable assurance of being fully stocked and equipped for the holiday-trade swim early in December.

But the railroad telegraphers' strike came, or some other overland transportation line trouble interfered with such realization, leaving Mr. Morrill out and injured.

The Bicycling World man yesterday met William C. Vaughn, who departed two days later for his home, in Yokohama, Japan, where he is in business as a bicycle salesman and trick rider for Andrews & George. He reports business satisfactory, but the entire possible field not greater than that of San Francisco alone.

**WE ARE RECEIVING VERY GRATIFYING ORDERS FOR THESE NO. 12 PEDALS,
ALSO FOR THE NO. 3 PEDALS AS ILLUSTRATED.**

**WE HAVE THE GOODS READY TO DELIVER, AND THE PRICES ARE INTERESTING ENOUGH
TO SATISFY AND PERSUADE YOU TO BUY.**



WRITE FOR CATALOGUE "C."

REED & CURTIS MACHINE SCREW CO.,

WORCESTER, MASS.

"Risen from the Ashes of a Former Desert."

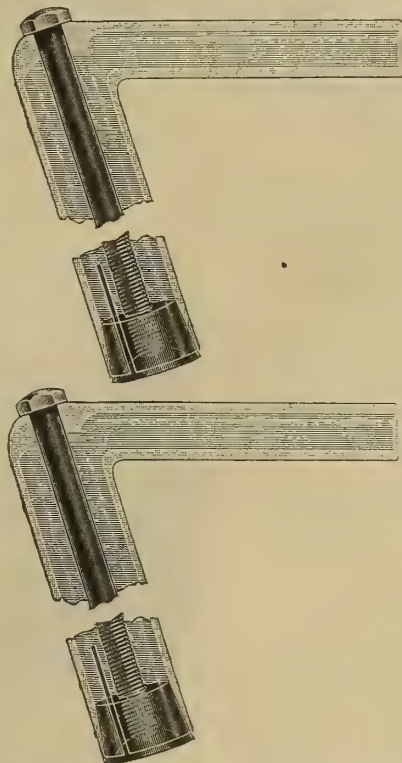
**PHOENIX,
ARIZONA,**

possesses wonderful attractions as a winter resort. Its climate is perfect and it can be reached by the

NEW YORK CENTRAL LINES

and their connections in four and one-half days from New York or Boston. For particulars call on any ticket agent of the New York Central or Boston & Albany.

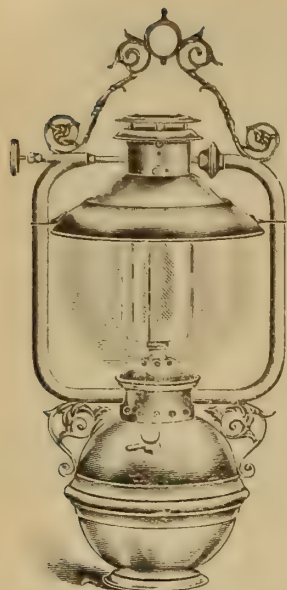
Send a postage stamp for No. 5 of the "Four-Track Series," to George H. Daniels, General Passenger Agent, New York Central & Hudson River Railroad, Grand Central Station, New York.



It is
not
neces-
sary
for us
to say
any-
thing.

THE STANDARD WELDING CO.
CLEVELAND, OHIO.

New York Office, No. 94 Reade St.



Outdoor.

THE NULITE 250 CANDLE POWER ARC ILLUMINATORS

Produce the finest artificial light in the world.
SUPERIOR TO ELECTRICITY OR GAS
CHEAPER THAN KEROSENE OIL

A 20th Century Revolution in the Art of Lighting.

They darkness into daylight turn,
And air instead of money burn.

No Smoke. No Odor. No Noise. Absolutely Safe.

They are portable. Hang them anywhere.

WE ALSO MANUFACTURE

TABLE LAMPS, PENDANTS, WALL LAMPS,
CHANDELIERS, STREET LAMPS, ETC.

The BEST and only successful

Incandescent Vapor Gas Lamps

made. They sell at sight. Nothing like them.

A SNAP FOR BICYCLE DEALERS.

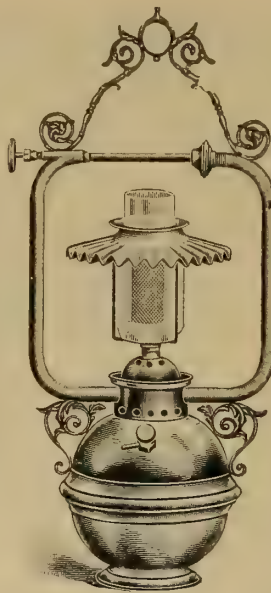
Agents wanted everywhere.

Write for catalogue and prices.

CHICAGO SOLAR LIGHT CO.,

56 FIFTH AVE.,

CHICAGO, ILL.



Indoor.



F. M. SMITH & BRO., - St. Paul, Minn.

HERE IT IS!

The Melvin
Automatic
Coaster
and Brake.

Thoroughly reliable, having been
tested for two seasons.

Write for
catalogue and
prices.

GASOLINE MOTORS

FOR

Bicycles, Vehicles and Launches

AIR COOLED AND WATER JACKETED

ACCESSORIES AND PARTS

ALSO

Complete Sets of Castings and Working Drawings

LOWELL MODEL CO.

Box 292 LOWELL, MASS.

We exhibit with C. E. Miller, Spaces 174 and 175, at Cycle and Automobile Show, Madison Square Garden, Jan. 12 to 19, also at Show Rooms, 97, 99, 101 Reade St., New York City.

All American wheelmen who desire to keep themselves posted upon matters concerning the cycle in Europe, its trade, mechanics, and sport, should subscribe to.

THE CYCLIST

AND BICYCLING AND TRICYCLING TRADES REVIEW.

The only recognized authority of English trade and manufacture. Sent post free to any part of America for one year, \$3.25. American manufacturers having novelties in machines or sundries to introduce should advertise in

THE CYCLIST.

Terms on application to

ILIFFE SONS & STURMEY, Ltd.,
19 Hertford Street, Coventry, England.

Members of the American Trade visiting England are invited to call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street, Ludgate Circus, London, E. C.

HIGH GRADE

wheels must have the
best equipments.

There is nothing that gives more value for
the money than the use of the

MORSE TWIN CHAIN ROLLER CHAIN



NOISELESS IN MUD, WATER OR
DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless
Rocker Joints. Insist on having the
Morse Twin Roller. Fits regular
sprockets.

Send for Catalogue and
Trade Price to

Morse Chain Co., Trumansburg, N. Y.

WE SELL ALL THE PARTS TO MANUFACTURE
AUTOMOBILES.

CREST MANUFACTURING CO.
CAMBRIDGEPORT, MASS.



CREST GASOLINE MOTORS
FOR
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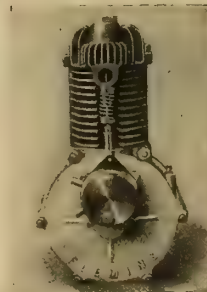
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In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., January 24, 1901.

No. 17

WHAT WILL LOZIER BUILD?

He Admits Motor Bicycles; of the Other Kind he Declines to Talk.

If reports go for aught, it is well within the range of possibility that the name Lozier will again appear on bicycles and regain its prominence in the cycle trade.

So far as concerns motor bicycles and tri-cycles, the fact is assured, but it was the rumor that a Lozier chain driven bicycle would make its appearance that aroused the most interest. The rumor leaked out during the Cycle Show and credited the Lozier Motor Co., of Plattsburg, N. Y., with harboring intentions of the sort.

E. R. Lozier, of that concern, was in New York at the time but when approached on the subject by a Bicycling World man he merely shook his head and declined positively to even discuss the matter, although he would not deny that a number of ex-Lozier agents had urged him to make a move of the sort.

Mr. Lozier was far more willing to talk about launches, automobiles, motors and motorcycles. That they already have those goods in evidence is well known, but that a motor bicycle was under way was known to few. Mr. Lozier confirmed the report, however, and stated that when it did make its appearance it would list at more, not less, than \$200.

"Such a bicycle as we will turn out," he said, "cannot be made and marketed for any such sum, and we desire the fact known in advance."

Comparatively few appreciate the immensity of the Lozier plant at Plattsburg, now partly completed, but that it will make its magnitude felt seems certain. George A. Burwell, the famous Lozier superintendent, is its mechanical head, and whether it be chain or motor driven, or both, the future of the Lozier bicycle is not in doubt for a moment.

Hughes Loses Heavily by Fire.

Francis L. Hughes, the veteran Rochester (N. Y.) dealer, was the victim of a disastrous fire on Saturday last, which entailed a loss of \$40,000, covered by insurance to the amount of \$25,000.

The fire broke out in the basement of the building at 67-74 Exchange street, the main portion of which was occupied by Hughes and stocked with bicycles, toys and baby carriages. A high wind fanned the flames, and zero weather added to the difficulty of the firemen's task. Two alarms were sent out, and almost the entire fire department went to the scene, but their utmost efforts only availed to save the adjoining buildings and the walls of the one occupied by Hughes. In addition to the latter's \$40,000 loss, there was about \$50,000 worth of damage inflicted on the building.

The bicycle store of T. J. Northway, which adjoined the burned building, escaped almost without damage.

Putting Temptation Behind Them!

Although at present quotations there would seem to be small danger of such action being taken, at a special meeting of the stockholders of the American Bicycle Co., on Tuesday, approval was given the proposal to change the verbiage of the charter so as to prohibit the company from buying its own capital stock. This action is said to have no particular significance.

Steiner Retires; Brecher Continued.

The well known jobbing firm, E. A. Brecher & Co., this city, has been dissolved by mutual consent. A. W. Steiner retires from the firm. Mr. Brecher, however, will continue the business at the same address and under the same firm name, assuming all liabilities and accounts of the copartnership.

Lejeal's New Move.

Charles H. Lejeal, an Erie (Pa.) dealer, has begun the erection of a factory at Seventeenth and State streets. He believes that "it would be greatly to his advantage to manufacture his own wheels, thereby enabling him to place them on the market at a much cheaper rate, and still be first class bicycles."

C. T. P. A. TRUSTEES MEET

They Hear Favorable Reports From Abroad and Consider Delinquents at Home.

At the meeting of the trustees of the Cycle Trades Protective Association, held in this city on Friday last, little more than routine business was transacted.

Reports concerning the bottom bracket litigation were received, and added to the satisfaction of the officials. At present the gathering of testimony in England is nearing a close. Enough has already been gathered to corroborate the sensational evidence of A. J. Gould that Smith, the alleged inventor of the bracket, sent him abroad to obtain the models from which the Smith invention was copied or evolved.

It is also understood that at Friday's meeting the trustees of the association adopted measures that will result in the publication of the names of the members in good standing; the omissions will tell their own stories.

Wont Sell Outside Sundries.

It is understood that Morgan & Wright have practically decided to discontinue the sale of sundries and accessories other than those of their own manufacture. Some of their branches have already disposed of the stock on hand, and their traveling men will no longer carry the stock of samples which formerly made an M. & W. traveler's trunk a miniature cycle store in itself. Although not generally appreciated, their travelers carried sundries and accessories of every kind, in addition to M. & W. tires and their other manufactures.

Tube Mill for Buffalo.

Press dispatches from Buffalo state that the Buffalo Cement Co., acting for others, has acquired a tract of land at Main and Amherst Streets, that city, on which a plant for the manufacture of steel tubing is to be erected. For some reason the names of the real projectors are kept in the background, but it is stated that the mill will involve an investment of \$700,000, and will employ 200 or 300 men.

VERDICT FOR \$15,000

Tale of a Puncture Proof Tire Threshed in Court With That Result.

That a puncture proof tire is still deemed to possess considerable commercial value was made plain by the outcome of a suit tried at Trenton, N. J., last week. Damages to the amount of \$16,349.50 were awarded to the purchasers of such a tire, being the profits, with interest, which would have accrued to them had the representations of the sellers been carried out.

The suit was brought by William H. Skirm, jr., and William A. Egan, both of Trenton, against R. Hellicker, of Camden, and Frederick A. Freas, of Haddon Heights, to recover moneys claimed to have been lost by the plaintiffs because of the failure of the defendants to fulfil a contract.

It appears that on August 29, 1899, the defendants, who are rubber merchants, dealing under the firm name of Hellicker & Freas, gave to Skirm and Egan, who are connected with the Empire Rubber Company, of Trenton, an option on a patent pneumatic tire, and gave them three days' time in which to purchase it for the sum of \$10,000.

A supplemental provision was made in the option that if the purchasers wanted more than three days in which to consider the purchase they were to be granted the time upon the payment of \$100 for each week's delay.

Hellicker & Freas had, previous to the granting of the option, sent a model of the tire to the Empire Rubber Company's plant and had had a number of sample tires made. The plaintiffs are both practical rubber men, and during the course of the manufacture of the tire they noticed its good qualities, and at once saw that it was a valuable invention. By the use of several layers of paper in various states of manufacture the tire was made puncture proof, and this greatly added to its value.

The plaintiffs saw that there would be a ready sale for the article when it should be placed upon the market, and they immediately began negotiations for the purchase of the alleged patent. Egan made arrangements with Hellicker for a consultation in Freas's home, at Haddon Heights, as a result of which articles were drawn and the option given.

Meanwhile Skirm was directing his attention toward the placing of the tires on the market, and had succeeded in interesting William Baldwin, of Warren street, New York City, and had sold the patent to him for the sum of \$25,000. These negotiations with Baldwin lasted three weeks, and during that period the plaintiffs were paying for the time on the option at the rate of \$100 per week.

When the deal was finally closed Skirm made a demand on Hellicker for the transfer of the patent. For some reason Hellicker

deferred the transfer, and during that time Baldwin made a demand upon Skirm for the transfer.

Then Skirm made another and a more forcible demand upon Hellicker, which resulted in the latter gentleman telling Skirm that he had no patent, but that he was expecting papers from Washington daily. Skirm was then forced to cut off his negotiations with Mr. Baldwin.

The suit was instituted to recover the \$15,000 which would have been Skirm and Egan's profit had the deal been made.

Baldwin told of losses he had suffered because of his dealings and of his negotiations with Skirm. He further said that he had organized a stock company in New York, with a capital stock of \$25,000, to handle the tire, and had the cash ready to pay to Skirm.

There was no defence to the case, and the jury was out but a few minutes, returning a verdict for the plaintiffs for \$15,000, plus the interest for eighteen months, \$1,349.50.

49 Bicycles Blocked Bankruptcy.

Forty-nine bicycles belonging to F. Tennyson Neely, the New York City publisher, who filed a petition in bankruptcy, with assets of \$359,351, nearly caused the refusal of his petition. One creditor out of 450 filed specifications of objection that Neely had knowingly concealed from his trustee forty-nine bicycles, valued at \$1,000, located in Chicago, which bicycles were omitted from the original schedules, but on June 27, 1900, the schedules were amended by adding a mention of these bicycles.

The bankrupt swore that the omission was inadvertent and unintentional, and that they had been transferred to a firm of Chicago attorneys before the bankruptcy as security for a debt he owed them. The referee does not think that the creditor established the essential and necessary fact that the omission of these bicycles from his schedules was done either knowingly or intentionally.

Sager Shows the Folly of it.

"Men who believe it possible to convert ordinary stock bicycles into motor bicycles by merely attaching motors to the former," said J. Harry Sager at the show, "are as bad as the freak inventors who would turn all horse drawn vehicles into automobiles. The horse drawn vehicles were never designed to withstand the strains and poundings of an engine, nor are the bicycles, as built for pedal propulsion. There must be as much thought given the design and strength of the bicycle proper as is given the motor itself." And who will dare say that Sager does not speak truly?

Met at Milwaukee.

At the annual meeting of the Milwaukee Patent Puncture Proof Tire Company, held at Milwaukee, Wis., last week, the following officers and directors were elected: George H. Benzenberg, president; G. Podoll, vice-president; W. D. Halsted, secretary and treasurer; George H. Benzenberg, G. Podoll, W. D. Halsted, Emil Durr and Thomas Spence, directors.

EXPORTS AND IMPORTS

Record of the Year—Balance of Trade Largely in our Favor.

Washington, D. C., Jan. 19.—Details covering the minutiae of our commercial relations with other commercial countries of the world for the past year are not yet available, but the figures covering that work as an entirety are more satisfactory than those for any corresponding twelve months in our history.

The imports for the year show a total value of \$829,052,116, or \$30,084,706 more than those for 1899. These imports were divided as follows: Merchandise imported free of duty, \$342,294,624, as against \$350,897,220 in 1899, or a decrease of \$8,602,593. There was an increase in those subject to duty from \$448,070,190 in 1899 to \$486,757,489, or of \$38,687,299 for the year of 1900.

Our exports of merchandise of domestic origin during the year were valued at \$1,453,113,110, or \$200,180,766 more than those for 1899; while \$24,937,744, or an increase of \$2,402,117 over those for the preceding year, stands to the credit of our exports of foreign origin. This gives a total export value for 1900 of \$1,478,050,854, as against \$1,275,467,971 in 1899, or a total increase of \$202,582,883, thus leaving a balance of trade in our favor for the year amounting to \$172,498,177.

The best of this matter is that this growth in our foreign trade is not a forced one, but has been one of gradual increase, year by year, for the past five years, as will be seen by comparing the total export values, as follows:

1896.....	\$1,005,837,241
1897.....	1,099,709,045
1898.....	1,225,546,266
1899.....	1,275,467,971
1900.....	1,478,050,854

Miami's Annual Meeting.

The Miami Cycle and Manufacturing Company, of Middletown, Ohio, met last week and elected the following officers and directors: P. J. Sorg, president; J. D. Alsop, vice-president and treasurer; P. J. Sorg, F. H. Ray, George H. Shafor, Harry Walburg and J. D. Alsop, directors.

Attachment in Warwick Suit.

At Springfield, Mass., last week, a \$20,000 attachment was filed in an action of contract brought by Alfred S. Clarke and J. H. Hendrick, as assignees of the Warwick Cycle Manufacturing Company, against George A. Russell, of Springfield. The case arises through an action of contract.

Balls for Watches now.

A ball-bearing watch was shown at the Paris Exposition. It is a man's watch of ordinary size. All the pivots roll on balls of one-half and one-quarter millimetre diameter (.02 and .01 inch). The ends of the spindles are conical, and the shoulders and sharp corners of the old bearings are avoided.

GAMAGE BUYS BICYCLES

Did'nt Intend to but Could'nt Resist—Londoner Makes Cheerful Predictions, too.

Only a few minutes' conversation with A. W. Gamage, the English apostle of low price in cycles and sundries and outfitting goods, was needed to demonstrate that his transatlantic reputation for enterprise and acuteness is well founded.

In appearance the Londoner is the typical Englishman, but with a difference. There is nothing slow about him, no heaviness of look or action, no accent thick enough to be cut with an axe. On the other hand, the rather short, burly figure, the smooth-shaven face, the aggressive air tinged with self-confidence, plainly denote his insular origin. Plainly, here was a type of man combining many and diverse faculties—a sort of British-Yankee.

"I am over on business and pleasure combined," he said to the *Bicycling World* man, after the customary greetings had been exchanged. "I have my wife with me, and we are going as far as the Falls, and will be in the country for about a fortnight.

"New things in the sundry line are what I am after," he continued, "and I am sorry to say that I have succeeded in finding little that is new or striking. Here and there I have picked up something worth while, but not much to speak of. The market seems to be remarkably bare of real novelties.

"Although nothing was further from my thoughts than to buy bicycles, that is just what I have done in the end. I came across something that I could not resist, and I shall have a lot of the machines follow me home. Yes, it's the Leroy I mean"—indicating the stand as he spoke—"and it will open the eyes of some people when I get back with it.

"Of course, some changes are being made in the machines to meet the requirements of the English rider. Such things as guards, brakes, etc., and a few other fitments are being added, and as delivered the machine will just suit my trade. No, I had no trouble in getting things to my satisfaction; the Leroy people met me more than half way, and it did not take us long to arrange matters."

Motorcycles were next touched upon, and the visitor spoke of the great interest taken in them in this country. He was of the opinion that the bicycle was coming in for a big run, and said that even in England it was scoring over tricycles and quads.

The trade situation in his own country was then referred to and the opinion expressed that the bottom had been touched.

"It is too much to say that prices are stiffening," he said in reply to the direct inquiry, "but at least they are not likely to go any lower. The demand is likely to improve, too. In fact, I believe that more bicycles will be sold this year than at any time since the 'boom' years." And with this

cheerful prediction the energetic Gamage turned to rejoin a friend who had been waiting for him.

Guilt Varies With the Grade.

It has been too generally the custom to regard the theft of a bicycle as a small matter, and the law has dealt very leniently with the culprits.

A change is to be made in at least one State—Colorado—if a bill just introduced in the Legislature becomes a law. This bill contemplates the overturning of the whole theory of larceny, and the revision of all definitions of the grades of that crime. In the past the value of the article filched has decided whether the crime was grand larceny or petty larceny. The bill in question is designed to have the grade of crime determined by the utility to the owner of the article stolen. It declares that the theft of a bicycle should be deemed grand larceny, and hence a felony, punishable by imprisonment in the penitentiary.

The argument for the bill is that bicycles are becoming the modes of transportation for the poorer class of people. Young women clerks, janitors of buildings and mechanics of all classes use bicycles to go to and from their places of employment. The cost is frequently under \$20, and thus the theft of one of the machines would, under the old theories of the law, be petit larceny. The theft of a diamond, which is, as far as utility is concerned, almost entirely worthless, is a far greater crime than the theft of so useful and necessary an article as a bicycle, which is a streetcar or a railway train to the owner.

The Price-Saturated Salesman.

Talking of the thorough saturation of the trade with the doctrine of price which has dominated the bicycle industry for the past several years, a prominent Western dealer, who was in attendance at the Show, related an instance to show that the prominence of price is usually the fault of the individual salesman.

"In my store," he said, "I had one salesman who was a marvel on cheap wheels. He sold so many of them that I finally required that he devote himself to the higher grades, which, of course, bring proportionately higher prices. I gave him a fair trial in this department, and he proved one of the most dismal failures I ever employed. It seemed impossible for him to talk anything but price. Instead of introducing them to the best goods he would lead prospective purchasers to the cheap wheels and dilate on the great value that was to be obtained for little money. I put up with this sort of thing for a month or more, and was then compelled to let the man go. He simply could not sell high grades or anything else which required a stronger argument than that of price."

The Lamson Machine Co., Abington, Mass., have a new motor for attachment to a bicycle, which they expect to place on the market shortly.

WHERE THOMAS STANDS

His Position Clearly Defined—How he Selects Agents for his Motorcycles.

"In all this talk about motorcycles," said E. L. Ferguson, of the E. R. Thomas Motor Co., during the Cycle Show, "the Thomas people are anxious only that the cycle agent shall not be befogged by the talk or carried off his feet by the wave of experimentalism.

"For ourselves, we desire to have it impressed upon the trade that we are not merely exhaling breath or engaged in seeking an angel capitalist to help float an experiment.

"We have a factory—and it is an open book to newspaper men—and are building motors and motor bicycles, and nothing else. Our every attention and energy are centred on them. Our factory lacks nothing, and we do not lack capital—nor brains, I think I may add without egotism. We are not engaged in trying to make a motor bicycle run. We have one that runs and that every one knows will run. We have not merely one or two machines for exhibition purposes, but a stock of them that enables us to talk real business to the agent and to give him deliveries. We are not dealing in futures.

"We do not decry the newcomer, but we are anxious that our exact situation be made plain and be generally understood."

Appreciating that the Thomas people are in splendid position to gauge the real interest in motorcycles, Ferguson was asked for information on this point.

"More than twelve hundred inquiries have been received at the factory," he said in reply, "and I have here the names of the applicants for the Thomas agency."

As he spoke Ferguson opened the drawer of his desk and drew out forty or fifty typewritten sheets; he turned them over slowly, and all seemed to be well filled; almost every State in the Union was represented.

"Our trouble is not in obtaining agents," said Ferguson, "but in differentiating between applicants. For instance, I have here applications from four dealers in Mount Vernon, N. Y., and it is not a small task to select the most desirable man for our purpose. Motor bicycles come high, and manifestly it is to our interests to select the dealer who does not shy at price. The dealer who devotes himself most to the \$60 or \$75 bicycles is logically the best fitted to talk and sell motor bicycles. In many cases we would be better off without an agent than to give our agency to the man who has made his mark with cheap or low priced goods, as you must appreciate. Differentiation of this sort places us rather apart from the ordinary bicycle manufacturers. But results justify the care."

"Motorcycles and How to Manage Them."
The only book of its kind in existence. Price, 75 cents. For Sale by The Goodman Co.

ASK THE USER.



Denver, Colo., May 20, 1900.

GENTLEMEN: Two weeks ago I bought my 1900 Model 35 National and I am delighted with it. This makes my fourth National as I have ridden your wheels continuously since April 25, 1895. I suppose I am only an exponent of your trade motto, "A National Rider Never Changes his Mount." Anyway I never could see a good reason for doing so and I come in contact with all makes of wheels here at the club, too.

Very cordially yours,

R. T. WATKINS.

It's a good line of bicycles which can hold its users like that. Do you see where the "good will" is, in a National business? It costs nothing but it's profitable.

GET
CATALOGUE.

NATIONAL CYCLE MFG. CO., Bay City, Mich.



Fisk Tires

Quality is what counts in these days of competition—the hey day of the cheap tire has passed.

One might just as consistently buy a coach horse and expect him to out-speed his neighbor's thoroughbred, as to buy cheap tires and expect high grade service.

People want value—full value—and the knowing ones are willing to pay for it, believing the best to be cheapest in the end.

That's why Fisk Tires are popular—and deservedly so.

They ride well and wear well and never give trouble.

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NEW YORK, JANUARY 24, 1901.

Results of the Show.

Opinions gathered at the Cycle Show and printed on another page make it clear that the function has lost little of its magnetism and stimulating properties.

If the show was not quite what it used to be, it should be borne in mind that the trade itself has undergone change, contraction and concentration that cannot but show their effects.

Taken as a whole, and save only the natural regret that arises from the absence of not a few notables, the show fulfilled its mission and left small cause for complaint or criticism.

It is certain as the sun that the chainless and the cushion frame particularly will feel the stimulating effects of the show during the selling season that is to come, while the motor bicycle was given the very introduction and impetus that it has needed.

Despite the interest in the subject and in the machines already on the market there were those in the trade who doubted that

the call for motor bicycles was either keen or wide spread, but unless these skeptics were deaf, dumb and blind the remarkable stir created by the machine that came from obscurity in a day must have removed their doubts.

The interest in this machine—to say nothing of the others—the rush to see it, the talk that it created was too potent to permit of skepticism.

The New York Cycle Show of 1901 may well go on record as marking the real beginning of the era of motor bicycles.

How Success is Won.

The truth of the adage, "keeping everlastingly at it brings success," was never better exemplified than by the chainless, the cushion frame and the coaster-brake. Their success is high tribute to the faith, pluck and perseverance of their sponsors. After years of "keeping at it" they have brought their inventions to the front in the face of scorn, ridicule and bitter opposition.

The Ascendency of Comfort.

Insensibly, almost without consciousness that the change was taking place, the era of ease and comfort in cycle construction has been reached.

When the upturned handlebar made its appearance—back in the mid-nineties or even earlier—it heralded the new movement, although even its inventors failed to recognize the fact.

It was a protest against the giving over to the "scorcher" of the bicycle of the day. It made plain the fact that speed—delightful as it was in many respects—was not the desideratum of all riders.

After years of intermittent progress, the movement has carried everything before it. Speed machines have remained stationary, those making for comfort have accounted for all the changes.

Present Methods Satisfactory.

If any doubt existed regarding the matter, the show just ended must have finally demonstrated that the present methods of construction are regarded by the trade as eminently satisfactory.

Incidents and accidents to machines are still of almost constant occurrence during the riding season. No maker is altogether exempt from them, nor is it possible, from the very nature of things, for him to be so.

But it is equally certain that breakages of

all kinds and failures of every description are due to imperfect materials or poor workmanship, and not to defects in the design of the present-day bicycles.

For example, front forks break with a persistency and frequency greater than is at all pleasant to contemplate; nor does the fact that the proportion of breakages is very much less than it was a few years ago palliate the matter overmuch.

But such breakages are not due to any defect in the design of front forks. Some other cause must operate to make them go wrong. Poor material, careless workmanship, a skimping of metal—some of these must be present, or the fork will not fail the rider.

If fork designs were changed matters would be little if any improved. The same laches would operate to bring about the same result; only by eliminating the evils referred to could mishaps be avoided, and if this were possible there would be no necessity for changing the design.

The same remarks are true of nearly every other part of the bicycle.

The latter is, for all practical purposes, good enough. Improvement is either impossible or it is obtainable only at a cost that puts it quite out of the question. Reliability, durability and strength are all to be found in the present type, and this fact is so well understood and demonstrated that there is little disposition in any quarter to make changes.

This is why constructional features have, in the main, attained too strong a position to be easily dislodged. The cushion frame succeeds largely because it does not necessitate marked alteration in the lines of the diamond frame; the chainless is made to conform as closely as possible to these same lines; with the coaster-brake the endeavor is to get as close to the conventional hub design as possible.

The present results have been reached only after years of experiment and earnest search for the best. The trade and public have learned their value, and there is a general disinclination to depart from the well travelled path.

The Milk in the Coconut.

It does not take much discernment to perceive, as has been remarked, that the calamity howler is present in the bicycle world in distressingly large numbers.

Nor is any great amount of perspicuity necessary to find reasons for the change of

front on the part of these erstwhile optimistic individuals, who now lose no opportunity to impress upon those with whom they come in contact that the bicycle business has gone to the demnition bow-wows.

The thing of most importance, however, is to divine whether their sour-grapish opinions and utterances are really true or whether they contain only those half truths which are even more dangerous.

The opinion is slowly gaining ground that the biased shafts of these knights of the doleful countenance have overshot the mark.

This opinion is based on happenings, some recent, others of longer standing, but all pointing in the same direction, to wit:

That the trade has suffered some rude shocks, has been warned, has been taught a disagreeable but salutary lesson;

That the good old days have passed away, never to return, even in part;

But that there is still good business to be done; business which, if handled in the right way, will be productive of good to all engaged in it.

The volume of sales will be much smaller; but every one will be made to count in the sum total of profit instead of, as in the past, being dissipated in empty air.

But this new order of things is not for the calamity howlers. They will have no part in it; hence their howls, their "knocks," both covert and open.

Culmination of the Cushion.

If it were still the fashion to designate the shows by the most striking constructional feature attending them, the one ended last week could fairly be dubbed the cushion frame show—reference being had, of course, to the pedal-driven machine.

But the fashion begun with the first show—termed the cushion tire show—and continued until decided novelties in cycle construction had almost ceased to be exploited, no longer obtains. Therefore, this ready method of heralding the success of the cushion frame is not made use of.

It is true that cushion frames are neither new nor wellnigh universal. Machines fitted with the spring device were in a decided minority even this year, and on some stands they were not seen at all.

Nevertheless, the cushion frame, more than any one other feature—excepting, of course, motor bicycles, which are, as has been so aptly said, another story—attracted public attention and aroused public discussion.

To the seeker after something new or dif-

ferent, the rider who complains of excessive vibration, who has a desire for solid comfort, the cushion frame bicycle is shown, naturally and without hesitation.

It is regarded as filling the bill in such cases. Furthermore, its advocates are no longer on the defensive, no longer placed in the position of having to explain that it is not merely a machine for old or infirm riders and quite inappropriate for the young and vigorous element.

In short, the cushion frame machine has taken its place as a distinct type of bicycle, possessing a wide and definite field, and ready to succeed or fail purely on its merits.

As it has reached this position not through clever advertising alone, but as a result of exhaustive tests, extending over a series of years and culminating in an enthusiasm that is as gratifying as unusual at this stage of the game, its future is a bright one.

Price Waits on Quality.

In former years—and not so many of them ago, either—price ruled the cycling world.

The trade and public were held as in a grip of steel by the ever-present and all-powerful matter of price. High grades, medium grades and low grades—they were separated by lines as undeviating and unbreakable as those dividing the castes in India.

The standing of a machine in the public estimation was based on its price. This price might be reduced, but it could never be raised. To fall from the ranks of the elect was to fall for all time. Very rarely was any effort made to regain the position thus forfeited.

Some machines masqueraded as high grade when by all laws of ethics they should have been placed a notch—or even two of them—lower.

Conversely, others had by dint of continuous improvement earned a place in a better grade. But they rarely or never attained it.

All this has now been swept away. The vicissitudes of the past few years have wrought havoc in the ranks of all classes of machines. Grades are seldom mentioned, uniformity of price has almost disappeared.

Chain machines range in price from \$25 to \$50. A good judge could pick out some of the first-named, place them alongside of intelligently-selected machines of the latter, and obtain a verdict from unbiassed judges in favor of the \$25 kind.

Some makers have striven to build up; others have succeeded in tearing down.

There is to-day more room for intelligent buying than there ever was. Names and prices no longer count for everything.

Above them tower quality, design and finish. According as these are present or absent the price is right or wrong.

But, at any rate, the trade is released from the old domination of price.

Haven't we had Enough of "Auto"?

Since the introduction of automobiles and motorcycles cycling nomenclature has been added to in a most substantial manner.

Many of the additions, however, do not enrich the language, and serve only to confuse.

The effort to make "auto" do duty for "ought to" has been responsible for much straining for effect, and has been carried to such extremes that we think it must occur to most of those particularly concerned that the time has come when the "plays" on the word "auto" should be passed on to the cheap actor and the heavy wit.

For a period, or until they become too common, "plays" on such terms may serve to advertise a particular person or article; but that period is usually short, and when the "plays" lose their point, pith and force, when they serve neither to advertise nor to enrich or enlighten, it appears fitting that they should be dropped.

Without desire to offend, the question arises, Is it not time to drop the "autowents," the "autobuys," the "autosells," the "autobikes" and the "autorettes"?

These terms or variations of them are designed to describe motorcycles of the several types; yet they serve only to mislead or confuse the unknowing.

Let the motor bicycle be known as a motor bicycle and the motor tricycle as a motor tricycle. The terms explain themselves, and their general use will aid in advertising the machines and in extending their sale and use.

The motor tricycle is now in second place. The motor bicycle has sprinted right away from it in point of general interest. The quad. is a little-talked-of third in the race.

Curiously enough, C really does stand for comfort in cycling—Coaster-brake, cushion frame, chainless—they are all C's.

The triumph of the cushion frame is almost complete. Few makers dare face their trade without it.

RESULTS OF THE SHOW

Opinions of Exhibitors Develop That all did Business and That Few Have Cause for Complaint or Criticism.

While the "gate" of this year's Cycle Show was undoubtedly smaller than that of any show during recent years, the discomfiture of the box office was not generally shared by the exhibitors.

On the opening Saturday and on the Monday following the attendance was such that symptoms of a "frost" were in the air, and a heavy "frost" was predicted. On Tuesday, however, the wind changed, and the crowds gathered in something like oldtime numbers.

Dealers, too, were not lacking, and as the week waned good feeling succeeded disappointment, and a round-up of the show by the Bicycling World representatives developed comparatively little dissatisfaction with results obtained.

"They've kept me busy enough to prove that the Victor bicycle has lost none of its drawing powers," said Manager Miles of the J. Stevens Arms & Tool Co. when the question was put to him. "We closed seven contracts to-day alone, and from all accounts I think we have reason to be perfectly satisfied."

"We have done well," replied George M. Hendee, of the Hendee Mfg. Co.; most of our business has been new business, and therefore satisfactory business."

"We've done a nice business and have no cause for complaint," was the summing-up of W. H. Williamson, of the Acme Coaster Brake Co.

The Admiral Lamp Co., whose combination oil and gas lamp gave them something really new to show and talk about, were particularly pleased. "We have more than exceeded expectations," they replied.

"By comparison with what other makers have done," said E. L. Ferguson, of the E. R. Thomas Motor Co., whose motor bicycle was such a feature of the show, "I don't think we have any cause for complaint."

E. J. Willis, of the Willis Park Row Cycle Co., was another exhibitor who was more than satisfied; and with reason, as he stated that at no previous show had he done such a heavy business. In one day, he said, he took orders for more than \$1,500 worth of goods.

"Oh, yes!" responded J. A. Jochum, at the A. H. Funke exhibit, "there's some life in the old show yet. We've booked some good orders for our lamps, but I'm frank to say that we worked hard for them."

"As we had closed with practically every one before the show, we did not expect to do much business here," said H. E. Walker, he of the Morrow coaster-brake and the Eclipse Mfg. Co., "but at that we've done business and have no reason to complain."

"How have we done?" said G. A. Boyer, of the Leroy bicycles, repeating the question addressed to him. "First rate—first rate, the last half of the week particularly."

"We have not been quoting figures direct to dealers," said Manager Woodward of the Diamond Rubber Co., "but I have the cards of more than seven hundred agents who inquired and who will hear from our jobbers. It is safe to say, too, that not less than one thousand people daily asked to see our new tube demonstrated, and who told us they had heard or read of it. I don't include the thousands who merely looked on in idle curiosity."

"We are glad we came," said Manager Rockwell of the New Departure Bell Co. "We did an excellent business and are satisfied."

"We couldn't have been kept very much busier," was the smiling response of Manager Brandt of the Hartford Rubber Works, a reply that was echoed by Manager Dunn of the Fisk Rubber Co.

"Can't complain," said L. J. Keck, of the Badger Brass Mfg. Co. "We've made several new jobbing connections, met numbers of old jobbers and have taken enough single orders for Solar house lamps and Fortis exercisers to pay expenses."

"I can't truthfully report any great business actually transacted," said J. Harry Sager, representing the Riggs-Spencer Co., "but I suppose we had our share. The Cinch is a new coaster-brake, and we have inquiries enough from dealers that should turn out well."

"Very well satisfied," remarked Manager Thompson of the George N. Pierce Co. "We did actual wholesale business and got lots of promises of retail trade."

"Very well pleased with the show; we made few sales, but had lots of visitors, and expect to reap the benefit when the retail trade starts up," said L. G. Fleming, of the Ellis & Fleming Co.

"We have done a fair amount of business, but it would have come to us just the same if there had been no show," was the reply of Manager Gilbert of the Stearns Bicycle Agency. "In fact, I think this will be the last show that will be held."

"We have done more business than at any show for the past four years," was the comment of one of the Messrs. Leng at the stand of J. S. Leng's Son & Co., who handle the Forsyth pedals, Kelly handle bars and other well known lines.

"We have done business, and good business at that; on the whole, we are satisfied with the show," was the summing up of the Great Western Mfg. Co.

"No reason to feel dissatisfied, although we could have taken more orders than fell to our share," so the Canfield Brake Co. delivered themselves.

"More advertising than actual business has come to us from the show; but it has paid us, we think, for our trouble and expense," the Noera Mfg. Co. concluded.

"Very much pleased with the show," said Inventor Holly, of the Holly Co. "We got

both agents and advertising out of our exhibit, and are entirely satisfied."

"Hope the shows will continue for the next forty years, and wish that one would be held every other week," was the terse comment of "Governor" Castle, of the Twentieth Century Lamp Co.

"Good business has been our lot, and we are pretty well satisfied," came from the Kokomo Rubber Co.

"More advertising than we could have hoped for, and plenty of promises of business when we are ready to deliver," said the inventor and maker of the Hafelfinger motor bicycle.

"Plenty of advertising, but little business," was the summing up of the Frank Mossberg Co. "We expect the business to materialize later, just as it did last year, when we could trace it directly to the show."

Saved Some of the Stock.

Damage to the amount of more than \$100,000 was caused by a fire which attacked the store at 817-819 Fourteenth street, Washington, D. C., last week. The building was occupied jointly by the Columbia branch and a patent and pension attorney.

The fire, which is believed to have started in the basement, spread rapidly to the main floors and through the elevator shaft to the third story.

The building was erected four years ago at a cost of \$87,000, and was designed as a model showroom for bicycles. The Columbia branch used the first floor, and lost about one hundred bicycles, all of its plant and several automobiles.

A feature of the fire was the daring rescue of three automobiles by an employe of the company, who dashed into the first floor when it was full of flames and run them out, one at a time, through the flames and into the street, using their own power.

Betts Gets a Free Hand.

No better indorsement of his administration of the affairs of the Keating Wheel & Automobile Co., of Middletown, Conn., could have been desired by Receiver Frederick A. Betts than was implied by the permission granted him last week by Judge Prentice, in the Superior Court, to carry on the business for four months more, dating from January 28. He was also authorized to borrow sums of money as may be necessary, not to exceed in the aggregate \$50,000, to carry along the business.

Receiver Betts reported to the Court that he wished to put out 3,500 wheels and 200 motor bicycles before the season opens up. He stated that it might prove that the motor bicycles would put the company on its feet and place it in a solvent position.

Not a creditor or bondholder opposed the motion.

Are you in This Directory?

Mensch's national bicycle and automobile directory will be ready for delivery between February 10 and 15 next. The publishers, Paul Mensch & Co., 92-94 La Salle street, Chicago, desire that all manufacturers and dealers who have not yet forwarded names, addresses and particulars do so at once. ***

ATTENTION TO DETAILS

Too Much of it by "the Head of the House" Works Badly.

The fact that a merchant holds the position of head of a business presupposes the possession by him of abilities beyond the ordinary.

The creation and maintenance of a large business is not accomplished by mediocre minds.

To achieve success there must be force somewhere.

In some men, says an exchange, it is found in ability to plan; in others, in a personality that forces others to do as the former wish; in a few instances, ordinary mental power, coupled with unwearied diligence, has forced a successful result.

But this fact is patent: it is brain work, not manual labor, that counts.

The merchant who stands around and thinks is a better business man than the one who spends his every working hour in detail work.

The profitable business is made by successfully utilizing the labor of others.

A man's powers for personal effort are limited; he must depend upon others to help him. His task is to derive a profit from the labor of those he employs.

To do this he must have leisure to plan,

to watch, to oversee and direct. He must not occupy his time so that he cannot do this.

The minute that a business man permits the details of his business to master him he loses the mastery of his business. He ceases to progress. Instead of being the driver of the engine, he becomes only a wheel in the machine. He loses the power to guide and bends his efforts simply to keep it moving, and it runs over the same old circular track until it gets into a rut.

In many instances we see a business grow rapidly to a certain point, and then progress becomes slower and slower, until it comes to a standstill.

There are hundreds of manufacturers who take all the risks of business and work hard personally to make only a fair salary.

Go into the houses, and what do you find? In this one the bookkeeper, and no doubt an excellent bookkeeper, too, is left to run the business while the firm members are all away on the road selling goods. They are away for a month or six weeks, and come back to find that the world has not stood still in the mean time. The routine business of the establishment has been looked after, but the head of the firm has lost his touch with the market and with the industry as a whole.

In another the proprietor prides himself, is actually proud of the fact, that he can and does act as his own foreman. He leaves the direction of his business to a subordinate, instructing him from his own igno-

rance of commercial affairs, while he wields the tools in the top loft of his building, inaccessible to the callers who wish to see him, on even the most important affairs.

These and many others are common examples. What true merchants do is to put brains, not manual labor, into their business. What would be thought of a bank president who acted as his own paying teller? He would be sure that the cash was honestly handled, but how long would he retain his accounts?

Merchants cannot run a business as a dentist or a doctor does his. They have got to employ men; they must direct and instruct and consult with them. They must have time to think for themselves to be enabled to employ the services of others to the profit of their business.

Can't Keep him Down.

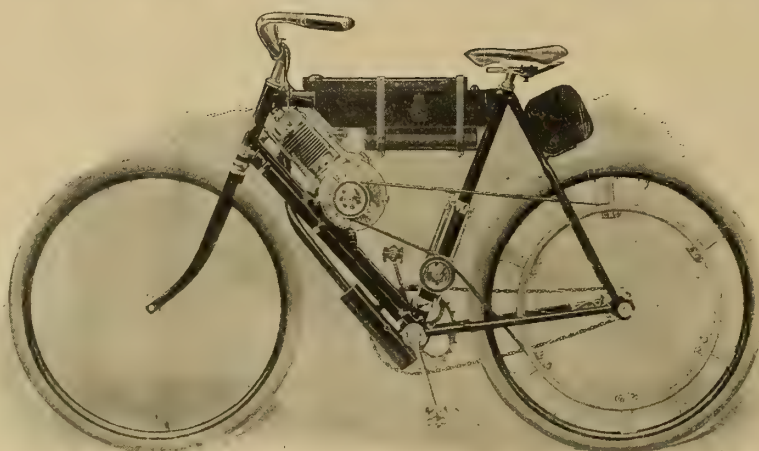
When "Jo" Pennell gets an idea in his head no amount of opposition will avail to turn him from his course. Just at present his hobby is motor bicycles, and he keeps hammering away at the subject, utterly regardless of the efforts of English opponents of the two-wheeler to choke him off. He is down to read a paper on "Some Experiences of Motor Bicycles" at the forthcoming meeting of the Society of Arts on February 6.

Dealer Clark Kills Himself.

Archibald Clark, thirty-two years old, a bicycle dealer, living at Jamaica, L. I., committed suicide on Tuesday last by shooting himself in the head. He had a prosperous business in Jamaica and was also interested in an artificial palm store in Brooklyn.

THE CENTER OF ATTRACTION AT THE NEW YORK CYCLE SHOW WAS THE AUTO-BI.

The Auto-Bi was on the track all the time, and was ridden 1028 miles. The same Auto-Bi was previously ridden 2000 miles, and will be run at the Philadelphia Cycle Show.



Three other Auto-Bis were used at various times to accommodate the people, and were ridden hundreds of miles without stoppage or mishap.

Everybody at the Show rode the Auto-Bi—racers, riders, amateurs. All opinions were the same—an ideal machine, absolutely without a rival.

ARE YOU IN LINE FOR THE GREATEST SELLER EVER OFFERED TO THE BICYCLE TRADE?

E. R. THOMAS MOTOR CO.,

106 Broadway, BUFFALO, N. Y.

ECHOES OF THE SHOW

A collapsible camp stool, which may be folded snugly and carried on a bicycle, was one of the "side issues" in the Willis Park Row Cycle Co.'s exhibit; it looks a good thing.

Mossberg's "cuckoo" bicycle bell was one of the tantalizers. The cuckoo sound is there all right, although some people seemed to expect that the sound of the bell would rival the bird itself.

"Automotourette" was the mongrel and meaningless term which one of the exhibitors sprung on the populace at the show. In plain English an "automotourette" is merely a motor tricycle.

To undertake to say who was at the show would be to practically compile a directory of the trade. As exhibitors there were many notable absentees; as visitors and lookers-on there were few, if any.

The week previous to the show the *Bicycling World* prophesied that the Leroy bicycle—and quotations—would cause some eye-opening. And they did. Few jobbers were able to resist the Leroy magnetism.

Of tandems there was a scant half dozen, three of them on one stand, and all were only too plainly "relics of the past century." Of triplets, quads and other once prominent multicycles there was not even a memory.

House lamps burning carbide were among the side features of the show that came in for no little attention. It was the first time such lamps had been displayed at a public exhibition, and the show served them to good purpose.

The orange hued, olive-headed Regal and the white framed, purple headed Holland demonstrated that in style, refinement and beauty of finish the old hands at the helm of the Stearns Bicycle Agency have lost none of their cunning.

Probably the only woman cycling "drummer" on this side of the water was present at the show—Mrs. H. P. Davies, of Toronto, Canada. She travels in the interests of the American Tire Co., of that city, of which her husband is the head, and which is an extensive jobber of American goods.

Although his Solar lamps shone as brightly as ever, R. H. Welles, of the Badger Brass Mfg. Co., was probably the most notable absentee. It was the first show he had missed in many years. He was laid up in Chicago because of an operation on a foot which was threatened with blood poisoning.

Some evidence of the activity on the circular track in the basement of the Garden is furnished by the cyclometer on a Thomas motor bicycle. During the week it was rid-

den exactly 1,028 miles. At different times the Thomas people also used three other machines to help teach the multitude.

"Canary Special," one of the finishes was styled. It is a cross between plain yellow and "yaller dorg" yellow, and, to make matters worse, the particular wheel had a blue head. Imagine the effect of the atrocious combination! It was evidently designed to stimulate the oculists' profession.

The New Departure Bell Co. has literally rung the changes on the nations of the world. Their display of bicycle bells, one each bearing the flag or coat of arms of all the principal nations, true in design and coloring, was not the most conspicuous exhibit, but it was certainly not the least interesting.

Canadian buyers were numerous in evidence. Among them were T. W. Boyd and John Millen, of Montreal, and Mrs. H. P. Davies and K. Ishikawa & Co., of Toronto, who represent the Japanese house of that name. A. W. Gamage and J. Plimpton, of London, were the most notable Europeans in attendance.

By all odds the queerest "talking point" or "feature," or adornment, or whatever it may be, was an arch fork crown on each shoulder of which had apparently been raised or brazed a shield, or something akin to it; the fork was black, the "shield" nickel. The effect suggested nothing so much as boils or blisters.

Of the several \$25 bicycles in evidence none could hold a candle to the Hendee Mfg. Co.'s Indian. Better value for the money has not been offered for many a day. The wheel is not only well made, of unquestionable material, but it is well equipped and superbly finished, and a year's guarantee "does the rest." The Indian puts not a few of the higher priced machines to blush.

In chain adjustments there is a distinct revulsion to the old style draw bolt type. The simplicity of this method has always enabled it to keep a long lead, but during the past year or two the eccentric adjustment bade fair to become popular. Save on the Leroy and one or two other machines, however, the eccentric chain adjustment is never seen.

For abominable finish the product of a big factory on the North Side of Chicago would be hard to surpass. The nickel scarce concealed the marks of the buffing wheel, while the enamel suggested that it had been laid on with a whitewasher's brush or a bricklayer's trowel. It was not only cheap, streaky and lack-lustreless, but in every angle and crevice it lay in bumps and lumps. The \$60 chainless and \$50 special were quite as bad in this respect as the cheapest juvenile in the line.

It was noticed that the motor bicycle which was credited with having Wall Street backing, and which was listed at a figure under that of the other machines shown,

was not run on the track in the basement of the Garden. Prospective buyers were consequently wary. Quite a number of orders were said to have been placed early in the week, but as most of them were contingent on seeing the bicycle in actual running nothing could have come of them.

The George N. Pierce Co., clever merchants as well as skilful manufacturers, alone displayed full nickelled bicycles. These were their Pan-American Special, that cushion frame coaster-brake chainless in which so much Pierce pride is centred. It is the highest priced model, and those who buy it are as likely to welcome the suggestion of a full nickelled mount as they are unlikely to balk at the extra charge which that finish entails. It is a clever stroke of well planned commercial strategy.

In frames the popular size for the tubing of the forward half is 1½ inches. Here and there are seen the newer one inch tubes, but taken altogether they are the exception. As to the 1¼ inch size, which only two or three years ago was by far the most popular of all, it has almost entirely disappeared—head tubes being, of course, excepted. This relegation to the rear of tubing of this size, which was a feature of last year's show, has been carried to a logical conclusion, until now the vanishing point has been almost reached.

In upper rear forks one type is equally prominent. This is composed of round tubes, bent inward just above the tire and coming together at the seat post. The effect is decidedly good, most of the designs being symmetrical and clear-cut. A few of the designs so prominent last year—flat, D-shaped and oval tubes, curved sharply above the bridge and then running nearly straight to the connecting lug—are still in evidence, but they only serve to relieve what would otherwise be a monotony.

Nearly equal uniformity marks the lower rear forks. They are, almost without exception, cranked just in advance of the tire, thence running straight to the crank hanger. Few round tubes are used, except on chainless machines—although, curiously enough, at least one machine of the latter class has the left hand stay made of oval tubing—the favorite shape being a compromise between a flat and an oval tube. As a rule, generous-sized tubes are used, although several machines have the equivalent of a ¾-inch tube, tapered to a ⅝-inch at the rear axle end.

Short heads, low frames, low dropped crank hangers—these three features have gone the way of the silent majority. Examples of them are still to be found, as on racers, but they form an insignificant minority, and many of the stands where they once reigned supreme now know them not.

Careful, not to say "smart," designing is also more than usually apparent. It is quite

possible that having no longer any excuse for digressing into "freakishness" or extremes, designers have devoted their time entirely to the production of sane, well proportioned bicycles.

Among the notable examples of this high class designing, the two new Syracuse productions—the Regal and the Holland—are pre-eminent. It is only justice to say that whatever high expectations may have been entertained of these machines before they appeared they are more than fulfilled.

Grand Rapids Grip Guarantee.

One of the concerns in the trade which took time by the forelock was the Grand Rapids (Mich.) Bicycle Grip Co. This concern is a consolidation of the old Leather Grip Co., Jarvis & Daniels and the Grand Rapids Bicycle Grip Co., the consolidation giving them facilities and an output that affords them wide latitude, not only in the matter of manufacturing, but in the quoting of prices. During the slack months of summer they kept the factory going, and as a result, they have a stock which enables them to take care of all orders promptly. They state that their guarantee is such that if their grips are not satisfactory in every respect, they may be returned at their expense. Their line includes both indestructible leather and improved corkene grips, fitted with all varieties of tips. In the East the Grand Rapids people are represented by D. P. Harris, No. 101 Reade Street, New York.

The Retail Record.

CHANGES.

Waco, Tex.—N. M. Gay succeeds J. Steere and will add a repair shop.

Williamsport, Pa.—Tomlinson & Co., removed to 105 E. Third street.

Ticonderoga, N. Y.—E. F. Macauley, removed to opposite the postoffice.

Binghamton, N. Y.—W. L. Montrose & Co. will open new store at 172 Washington street.

FIRES.

Perth Amboy, N. J.—A. J. Anderson, loss about \$1,000.

East Boston, Mass.—Howard S. Hunter, Brooks and Princeton streets, loss \$1,200; insured.

NEW STORES.

Southport, Conn.—Southport Bicycle Co. will reopen February 1.

Gives up the Struggle.

The Union Cycle Co., No. 133 S. Main Street, Akron, Ohio, filed a deed of assignment on Friday last, transferring his property to W. A. Spencer. The liabilities and assets are small.

Recent Incorporation.

Ripon, Wis.—W. E. Schaefer Mfg. Co., with \$40,000 capital, to manufacture automobiles, gasoline launches and bicycles.

Henry M. Manwaring, Bridgeport, Conn., has been granted a discharge in bankruptcy.

The Week's Patents.

665,452. Bicycle Bell. Theodore B. Moffat, Pittston, Pa. Filed May 12, 1900. Serial No. 16,468. (No model.)

665,480. Camera Carrier for Bicycles. Edwin M. Softley, Scranton, Pa. Filed Jan.

665,605. Tire. James Kelly, Passaic, N. J., assignor of two-thirds to N. Du Bois Strayer and James Ferguson, same place. Filed Feb. 14, 1900. Serial No. 5,186. (No model.)

665,700. Vehicle Wheel Tire. Arthur L. Stevens, New York, N. Y. Filed Mar. 14, 1900. Serial No. 8,627. (No model.)

665,715. Tire for Vehicle Wheels. Charles F. Allen, Hueneme, Cal., assignor of one-half to Lunby B. Hogue and William C. Hewitt, Santa Paula, Cal. Filed Sept. 29, 1900. Serial No. 31,508. (No model.)

666,068. Driving and Braking Mechanism for Bicycles. Edward Sarvela, Whitesborough, Cal. Filed June 18, 1900. Serial No. 20,768. (No model.)

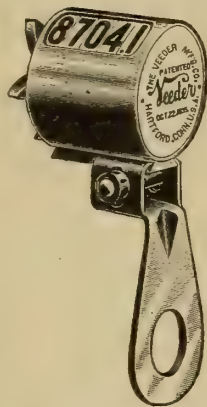
666,179. Tire. Charles E. Bradish, Moline, Ill. Filed Sept. 18, 1900. Serial No. 30,418. (No model.)

666,187. Bicycle Frame. Joseph S. Dikeman, Torrington, Conn., assignor of one-half to Charles S. Dikeman, same place. Filed Mar. 7, 1900. Serial No. 7,600. (No model.)

666,249. Bicycle Support. Harvey M. Wood, Denver, Col. Filed Jan. 22, 1900. Serial No. 2,378. (No model.)

DESIGN PATENT.

33,870. Bicycle Hub. William S. Gubelman, Buffalo, N. Y., assignor to John C. Conway, same place. Filed Nov. 26, 1900. Serial No. 37,838. Term of patent, 7 years.



Regular Cyclometer.
10,000 miles and repeat.
Weight, 1 oz.

The One Cyclometer that has Stood
the Test of Time,

THE

Veeder

IT IS SOLD IN EVERY COUNTRY IN THE WORLD
—CIVILIZED AND OTHERWISE.

It is the Acknowledged Standard Distance Recorder

THROUGHOUT THE CIVILIZED WORLD.

Any Jobber that does not carry

Veeder
CYCLOMETERS

does not carry a complete line of cycle sundries. Made for 24, 26, 28 and 30 in. wheels. Catalogue free.

THE VEEDER MFG. COMPANY,

HARTFORD, CONN.

Makers of Cyclometers, Odometers, Counters, Fine Castings.



Trip Cyclometer.
10,000 miles and repeat.
Weight, 2 oz.

"EXTRAS" AND EXHAUSTS

Two Factors in the Motorcycle That Afford Cause for Remark and Suggestion.

London, Jan. 8.—Snow has fallen heavily the last three or four days, and therefore everything in the motorcycle line is at a standstill. A visit to several of the depots on Holborn Viaduct—which is apparently to be as much the home of the motorcycle as it is of the pedal-propelled machine—disclosed the fact that positively nothing is doing, although inquiries are coming in, and every confidence is placed in the trade opening well in the spring.

The great complaint is that there are so few novelties, except, indeed, things which add so much to the cost of a machine as to render it next to unsalable. As a maker remarked to me, anything which tends to add to the selling price of a motorcycle is hardly good for the trade or the business at the present moment, because so far the public are not certain buyers, and want careful nursing. It is for this reason that so many motor tricycles and quads are being made with only one gearing, and that fixed, in spite of the fact that there are several excellent two-speed gears and free motors—if I may coin the phrase—now offered to the trade.

The worst of it is the prices of these are so high that the demand is choked off, a circumstance which makes it still harder to sell the machines. I saw a two-speed gear and clutch the other day which contained one internally cut toothed ring, forming part of a box, a plate, holding two studs, two small pinion wheels and an inner wheel mounted on a sleeve. A steel friction band was also provided to throw the gear in and out of work. The trade price was \$60, and, as the agent who had had the order to fit the gear remarked, it is not worth \$10. In fact, he told me that he had made drawings of the device, which does not appear to be a patented one, and that if further orders came in to fit such gears he should make patterns and get castings, as even then he would be in pocket over the very first one fitted.

It does seem a pity to smother a rising industry just at the outset, when patrons are needed, not only from the actual point of view of being actual present buyers, but as helping to encourage others to follow in their wake.

A good speed indicator would find a ready market, provided that it were reliable and acted independently of the size of the wheels of the car. By this arrangement the instrument could be detached from one vehicle and put on another without trouble. It should be made so that the dial is on the handlebar of a motorcycle or on the dashboard of a voiturette. The price ought not to exceed \$10.

Some people are finding out that the ex-

haust valve springs at present fitted are not sufficiently strong to properly close the valve and prevent its chattering when the motor is running at a really fast rate. In some cases the fact that a stronger spring has been fitted has increased the speed of the machine very considerably, but at slower speeds the motor does not run so satisfactorily, and there is more difficulty in starting. The other day I saw a device fitted to a quad which got over this difficulty, as, by means of a Bowden wire, the spring of the exhaust valve can be stiffened when the motor has got up speed, and the rider told me that he had found great benefit from the arrangement. A good many of the troubles arise owing to valves failing to close properly, and as there is no difficulty in fitting so simple a plan of insuring efficiency I do not see why it should not be tried commercially. It is one of those little alterations which would not add materially to the cost of production, and would therefore be welcomed.

It is rather curious to note that at the present time a good many of the motors of the modified De Dion pattern, which are now sold as first-class, and at prices fully equal to those charged by the De Dion & Bouton Syndicate, Ltd., are constructed with the axles and cranks turned with shoulders to hold them squarely on the fly-wheels, instead of being tapered into the latter. The result is that a considerable number of these shouldered axles have broken off short, and one firm has been doing quite a small business in rebuilding motors of this type with tapered axles. This invariably effects a complete cure, and yet the original manufacturers still persist in the shouldered pattern.

By the way, the normal speeds of some of the fairly high horse power motors now being sent over from France appear to be getting higher and higher. I saw an engine last week which was said to do its best work at a running speed of some 2,100 revolutions per minute. Yet the wear and tear upon these high speed engines must be very great. At one time the Daimler was looked upon as a high speed motor, but now it must be accounted a slow running engine. Indeed, having regard to the fact that it is run with a trembler on the induction coil, it follows that such is the case—comparatively speaking, of course.

The Distinction of Name.

The Manhattan Storage Co., of Philadelphia, has thrown out an offshoot in that city, the Puritan Tire & Rubber Co.; the latter concern is at present dealing with tires only, but later, it is understood, sundries in general will be added.

Parker Goes With Barker.

Harris Parker, than whom few men in the trade are better known or more experienced, has engaged with C. B. Barker & Co., the well known jobbers of this city; he will have charge of their cycle and sundry department.

PARIS SHOW PROSPECTS

How French Makers Seek to Advance Their Interests—Other Breezy Subjects.

Paris, Jan. 8.—Now that the show is coming on, the motorcycle maker is trying to get some big performance to his credit by sending his machine on a jaunt of a thousand miles or so in charge of a professional, and if he ride a quadricycle "built for two" he is accompanied by a newspaper man whose mission it is to see that everything is done on the square.

These runs usually cost a good deal, especially if the machine be a tricycle, because in this case the professional has to be checked in all the towns through which he passes by the inscription of the time and date on the "log" which he carries with him. This has to be done by some one in each town occupying a certain status, and, seeing how many times the log has to be checked, the work of properly organizing a run of this description is a considerable one.

If the attempt succeeds and the machine gets through the run in a creditable time the maker is well repaid for the outlay; he has some tangible claim with which to present his motorcycle at the show. In the event of its failing the public know nothing about it. Yesterday Marcellin was to have started on a tour around France on a quadricycle, but the weather turned out a little bit differently from what had been expected. Until then we had had beautiful springlike weather. The roads were rather muddy in places, but nevertheless the conditions were delightful for motocyling, and the season was longer than we have known it for many years past. But on Monday there came a killing frost, which nipped Marcellin's project in the bud, and the mercury sank so low that the undertaking had to be postponed. This is one of the drawbacks of motocyling.

However much one may be devoted to a pastime, it is foolish to be blind to its faults. Everything has its drawbacks, and motocyling has as few of them as most things. But there certainly is an inconvenience in riding in very cold weather, and even when wrapped in furs one's extremities get benumbed and he begins to envy the feelings of the cat on hot bricks. The fast travelling which is a great advantage in motocyling becomes a disadvantage on the cold days of winter, for when riding at a very rapid rate without any exertion on your part your temperature seems to fall several degrees below that of the atmosphere.

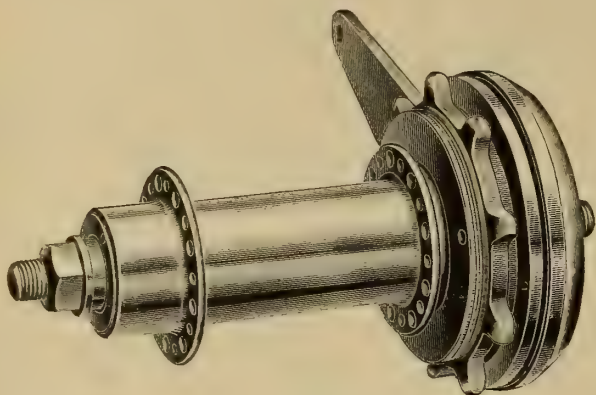
A long while ago I remember crank inventors bringing out devices for warming the feet and hands of the cyclist in winter. I don't suppose they ever made a fortune out of them. They ought to have a better

chance in fitting up something of the sort on a motorcycle.

This reminds me of a steam bicycle that was built several years ago by M. Dalifol, whose invention struck me as having splendid possibilities for winter riding. After this lapse of time I cannot recall the exact arrangement of the mechanism, but there was a small circular furnace and boiler attached below the bottom bracket, and coke was

dropped down into the furnace through a pipe which rose above the top tube, giving the rider the full benefit of the hot gases. If he didn't mind getting as black as a sweep and half suffocated with the fumes he might—or might not—enjoy it in winter, and he certainly had the advantage of being able to warm his feet on the boiler, which, if it didn't blow him up, would give him plenty of warmth at the cost of a new pair of boots after each run. Besides this,

he would be kept pretty busy in filling up the boiler every mile or so, and would have quite enough physical exertion in breaking through six inches of ice to get supplies. As a propelling mechanism the steam engine was all right, and the bicycle ran smoothly, regularly and swiftly; but, of course, the disadvantages were so considerable that the thing could never catch on. But still it is an idea which may very probably be worked up one of these days to give very satisfactory results.



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SENSATION OF THE SHOW

The Motor Bicycle That Came From Obscurity to Prominence in a Day.

That the Hafelinger motor bicycle was the sensation of the Cycle Show few will attempt to deny. It put in an appearance on Wednesday, as was stated in last week's *Bicycling World*, and without previous notice of any sort and by the grace of an exhibitor was given a corner in his booth.

None had ever heard of Hafelinger or of his bicycle, but before the day was spent his name was on every lip and his bicycle had been examined by every tradesman in the show, to say nothing of the many spectators. The interest continued throughout the week, the bicycle being constantly surrounded by a throng and the inventor being plied with inquiries and for his address. Several flattering offers were made to Hafelinger; one, at least, by a highly responsible man in the trade, and it will be the Jerseyman's own fault if his bicycle fails to cut a figure in the business. He cannot say that he lacked opportunities.

E. Hafelinger himself is a member of an obscure firm of cycle dealers and repairers in the Town of Union, N. J., which is virtually a part of Jersey City, and just across the river from New York. He was practically unknown before the show, but without regard to its internal mechanism, the compact, clean cut and attractive appearance of his machine fairly caught the trade and the people and not only made a reputation for the maker in a day, but fully demonstrated the value of appearance. The illustrations, which show both sides of the machine, will convey a fair idea of its construction and appearance.

As one motorcycle maker expressed it, "Hafelinger has us all beaten as far as the design goes, but whether he has not sacrificed his construction for design is something that only time can decide."

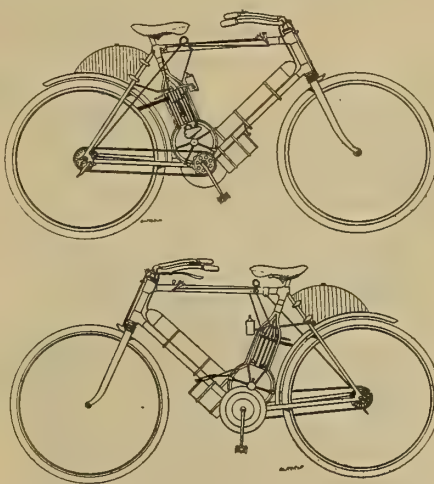
However that may be the machine is one that will catch the eye and elicit the approval of rider and tradesman alike. It is an ordinary bicycle, differing from other patterns only in having no seat post mast. In place of this four small tubes connect the top and bottom of the frame, shaped to receive a motor of the De Dion pattern. The tubes are sufficiently open in front to permit the motor to be slipped in place without disturbing them.

The motor itself is a beautiful piece of work. It indicates one and one-fourth horsepower, and is built with a compactness that has set every other motor manufacturer to thinking. By reason of this compactness a tread of a shade under 6¼ inches is obtained.

To the motor shaft is attached a spur

gear wheel, measuring, roughly, ¾ inch in width and 1½ inches in diameter. This meshes with another gear wheel, directly below the first one, about eight times as large, and, in turn, running a shaft which passes through to the other or sprocket wheel side of the bicycle. On this shaft is mounted a sprocket wheel, and this is connected by a chain in the usual manner to another sprocket wheel on the hub of the rear wheel.

All these parts are constructed in such a thoroughly workmanlike manner as to appeal to the heart of the critical observer. The two spur gears are mounted on ball bearings and are completely enclosed in metal cases. The forward sprocket wheel contains a clutch which permits it to be



thrown out when the rider does not wish to pedal. In the rear hub is a Brown-Lipe two-speed gear, which permits different speeds to be used on varying grades, and makes it possible to disconnect the motor and run it without running the bicycle.

The battery is contained in a long cylinder attached to the lower main frame tube, the gasoline tank occupies the space between the upper portion of the upper rear forks and the mud guard, and the mixture of gas is made in an apparatus which is a cross between an atomizer and a sprayer.

The muffler is long and narrow, the principle being to eject the gases through a tightly coiled wire.

Sparking Plug Improvement.

One of the features which distinguish a good sparking plug from a bad one is the tightness of the packing and its ability to resist the entrance of moisture. A good cement for fastening the porcelain into the metal part of the plug is said to be formed from a mixture of powdered asbestos, plaster of paris and gum water. The metal container should be well filled with this mixture, the porcelain pressed home with it, and the collar screwed down tightly. If the plug be then laid for a few days in a gentle heat near a fire it will become one solid mass. A plug made up in this way will last far longer than one packed simply with asbestos fibre.

HOW THE LAW WORKS

Record of the Bankruptcy Court for the Year—Figures Mount High.

Washington, D. C., Jan. 19.—The report of the Attorney-General for the year 1900 shows that during the year the total number of petitions of a voluntary nature filed for the twelve months ending September 30, 1900, was 20,189, and under the heading of involuntary 1,810; this makes the total number of voluntary petitions filed since the passage of the bill 40,570, and of involuntary 3,122. Of the voluntary cases the liabilities in 19,540 cases amounted to \$264,979,152, while the total amount of the assets scheduled in connection with the same was \$33,098,771. In 11,107 cases assets were scheduled, while 7,917 of the petitioners reported that they had no assets.

The returns show that under the voluntary petitions 2,057 were farmers, 7,516 wage earners, 4,592 were merchants, 361 manufacturers, 509 professional men, and 4,435 contractors, hotelkeepers and others.

The liabilities in the involuntary petitions were \$27,179,001, and the assets \$13,433,209. In 200 cases no assets were scheduled.

It is expected that under the existing conditions in the business world the number of voluntary petitions will be much smaller during the present year, as it is believed that a large percentage of the cases which have been brought under that heading were those of old insolvents.

There has been an increase of slightly over 300 petitions under the involuntary feature of the law, which is quite significant in connection with the impression heretofore current that the law has been in favor of the debtor rather than of the creditor. This demonstrates that the creditor interest is developing more confidence in the law and is utilizing it more freely. The conclusion is drawn that the increase is not indicative of the fact that the country is any worse off than it was prior to the enactment of the law, but merely that its equitable and just features are being used in place of the more stringent and harsh measures of the insolvency laws of the various States. Attention is further called to the fact that the amount of assets distributed in the cases that have been closed approximates 8 per cent of the liabilities, which goes a long way to refute the charge made against the law by those who were opposed to it to the effect that no assets would be scheduled in these cases.

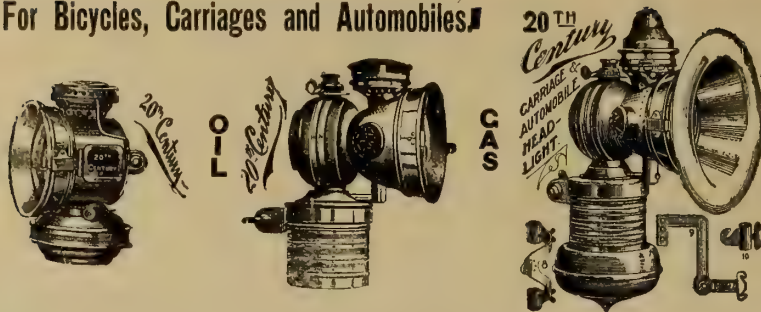
All About Motorcycles.

Post yourself on Motorcycles. Study up on the cycle of the future. "Motorcycles and How to Manage Them" will help you amazingly. The illustrations show the "insides" of the motor and the text explains. For sale by The Goodman Co., New York. Price, 75 cents.

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**\$4000 CASH
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SPELL IT EITHER WAY,

up and down, crosswise, or any other way, the fact remains that the Olive bicycle and the Olive proposition is a combination that no wideawake dealer can permit to escape without an inquiry.

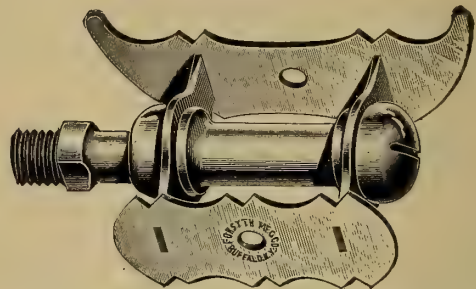
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Are You One of the Wideawake Kind?

OLIVE WHEEL CO., . . . SYRACUSE, N. Y.

AS DAVY CROCKETT REMARKED,

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ARE YOU SURE YOU ARE?

With our pedals and prices we can't well see how you can be right unless your pedals are big balled Forsyths, and if you'll give us the chance we'll produce some mighty strong evidence in our favor.

WILL YOU DO IT?

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TRUE INTERCHANGEABILITY

The Part Played by the Thousandth of an Inch Interestingly Discussed.

Through the quiet times of the "slump" have our makers had time or thought it worth while to do anything in the direction of improving interchangeability of the parts of their machines? We refer to true interchangeability. All makers are ready enough to so describe their machines or fittings, says the Cycle Trader, but the practical agent and rider know that it has been very much otherwise in the past.

A couple of thousandths of an inch variation may not appear much when viewed from the other side of the road, and the average village blacksmith would scorn to recognize such an unimportant fraction; yet there are many parts of a bicycle where such an amount of error in fitting would prove fatal to efficiency.

Let us look at a few of them and trace results. Commercial balls for bearings may now be had guaranteed accurate to within the one-five-thousandth part of an inch, and such balls might fairly be described as interchangeable, but there is certainly no other component part of the machine which is gauged to anything like this degree of fine measurement—nor is it needful, but at the same time, just as a variation of a quarter of a thousandth in the measurement of one ball in one series or bearing will make itself felt, so will the comparatively large variation of the full thousandth have its due effect in several more or less important members.

Another word about balls, however. All balls are not made to this exactitude, and the cheap balls used by careless agents for renewal are answerable for the ruination of the bearings of many a good machine. One ball is missing, say, and a new one substituted, but some fractions of a thousandth larger than the remainder. What is the consequence? When that ball comes round to the working point there is a "tight place," and if the cone be a good fit to the spindle there is no help for it; the ball is the harder of the two, so the cone must suffer. Such bearings cannot be maintained in perfect adjustment, and the cone is rapidly worn away. All such renewals on first-class machines should be made by fitting an entire set of balls taken from new stock of guaranteed size.

The most glaring defect in this so-called interchangeability is probably to be found in the fitting between crank and bracket spindle. At first glance this fitting would not appear a difficult one in which to provide perfect interchangeability, not difficult, say, as compared with certain parts of a watch, which parts, as now produced by the best American makers of cheap watches, will go together without any hand fitting.

Yet cycle factory practice—advanced as it

admittedly is to-day—cannot, or does not, make this part of the machine interchangeable. Every crank axle and pair of cranks must be individually fitted, i. e., if best workmanship and results are looked for, and that this is so let any one take apart fifty complete bottom brackets by any of our best component firms, mix the parts up, now assemble the whole fifty. It cannot be done without specially refitting a number. Granted that with fifty pieces of everything you may by trying this and that sort out certain sets that will go together correctly or as correctly as the original fitting, but you are only sorting out a puzzle. This is not interchangeability, and if your standard of fitting be a higher one than the original fitting, then the pieces of the puzzle can never go back into their original places. As this one typical part of the machine will serve as a good object lesson, we may dissect the points in-



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involved, taking the fitting of one end of the axle only. It will be found that to insure interchangeability of parts no less than fifteen gaugings will be required. They are as follows:

Diameter of hole in crank boss, diameter of spindle, depth of seating on crank axle, depth of crank boss, relative position of cotter hole to flat on crank, diameter of cotter pin hole, diameter of cotter pin, angle of taper on cotter pin, thickness of cotter pin midway of taper, flats on opposite ends of spindle to be diametrically opposite, depth of flat or keyway, width of keyway, position of keyway in relation to end of axle and cotter hole in crank, diameter outside threads of cotter pin, diameter inside cotter nut.

We will not advance the argument that one-thousandth of an inch slack fit in any one of these directions would ruin the machine, but still the value of the thousandth would be apparent if the axle happened to be

to that extent larger than the hole in the crank boss, and that particular crank and axle could no more go together until the thousandth were removed than it could if the difference were a quarter of an inch. In commercial samples, however, it is not necessary to discuss the matter in thousandths; a hundredth part of an inch would be a sufficiently fine division for expressing sizes, the very method of individual fitting of cranks to axle by means of a taper reamer proving this, for the reamers made for this purpose and for a nominal $\frac{5}{8}$ in. ($\approx .625$) hole are usually tapered from about .620 to .655, an allowance of .015 for fitting, and even then the fit (assuming the axle end to be parallel) can only be at one point, for the hole is taper. A more important practical consideration, however, is the cutting of keyways on axles, and the tapering of cotter pins to bring the two cranks into straight line, and it is safe to say that this is never, or very rarely, the case without special fitting or selection from a number of cotter pins. We saw cranks at the recent shows quite half an inch out of line and crank bosses gaping open on the cotter side of the axle. Was this "special" fitting or interchangeability?

The relation between position of cotter hole, depth of keyway and thickness of cotter is a most important one. Assuming the cotter to be right, if the hole is even of correct diameter, but bored too far out from axle, and the axle keyway is at the same time too deeply cut, then the cotter will drive through without holding up the crank; if both errors are in the reverse direction, then the cotter will not enter. If all these three points are correct individually it is no use if the crank be a slack fit on the axle; the cotter still enters too far, and several other conditions, which will be apparent, can in combination prevent the parts going together, in the sense that the non-mechanical rider would expect from what he understands as high-class interchangeable work. The maker may argue that as each machine is specially and correctly fitted at the start it is not likely to cause the rider more trouble than the refitting of a cotter pin, but our experience teaches that when a rider sends to the works for a spare crank and gear wheel the chances are that it will not go on the axle for a start, and the average agent and repairer is not, as a rule, overwell supplied with slow taper reamers to all manner of fantastical odd decimal sizes.

Here is an instance, which struck the keynote of this article: Local repairer, in straightening a crank, breaks same, just short of boss. Rider says he will write firm direct for a new crank; new crank arrives, totally different pattern; returned. Letter from makers states cannot do that pattern crank now, if will return entire axle and other crank will fit whole up new at nominal charge. This was done, but when the new axle and cranks arrived, after some two months' delay, it was found they were for a wider tread machine and absolutely use-

less, but this was only discovered after the local repairer had had a playful time with a Carter fixed gearcase. The firm then wrote for the entire frame to be forwarded, and a month later it was returned fitted, and the local man was ready to commence assembling. The whole operation only lasted from early in April to some time in August, and the repairer (from the owner's point of view), having done nothing, has got nothing yet for this trouble.

The thousandth of an inch can play an important part in the case of exchanging handle-bars, for if the bar be that amount bigger than the bore of the head tube, it certainly will not go in, and as the surface is plated there is no remedy but fitting and replating. The head adjusting nut is another old offender, for if this nut be a fraction small, and the steering column screw correspondingly large, then, though bar and steering column are correct size, that nut won't go on; and here again we have a difficult job, unless a good assortment of varying sized nuts are at hand. The fitting of pedals to cranks presents another case, more particularly with the solid-ended right and left threaded variety, where the pedal is supposed to be screwed in with a screwdriver slot from the back, or by a thin sheet steel spanner on a flat.

Bottom bracket discs have been the frequent cause of strong language on the part of excellent tempered men; it is usual to supply a small pin spanner with these, but we have seen a repair shop scrap box with fifty of these broken up in struggling to get tight discs in and out. Now, a tight disc is, up to a certain point, a blessing, particularly on the chain wheel side, but one hardly looks upon a hammer and punch as the proper tools to effect its removal. The two discs, however, should not be quite alike in fit, for the left-hand side or adjusting one must be a working fit, such as the ordinary rider may manipulate, but it does not require many thousandths to jump from this to the hammer and punch stage.

Quite a number of other parts might be instanced, to say nothing of the whole wider question of screw threads and bolt diameters, but among small matters having a large effect perhaps the most important remaining one is the spoke and nipple; here we may easily go wrong many ways; the thread is so shallow that a spoke a thousandth or two small (a very common occurrence) or the nipple as much too big, or the two in combination, and all strength is gone. Then again, there is the question of want of uniformity in pitches for nipples, the "Abingdon," an old series of bastard pitches, being the only approach to a standard; but how does the small maker or repairer know he has got the "Abingdon" pitch? He may buy nipples and screw plates to that name, but that the two will fit does not follow.

Enough, perhaps, has been said to indicate that there is still room for improvement even in an admittedly fine piece of work as a whole, the modern best bicycle.

If you are purchasing the accessories to equip your 1901 line of bicycles, and desire to have a handle bar with many talking points to help sell the wheels, you will try to become better acquainted with the

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Forward Extension

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Can be adjusted to 45 different positions without changing distance between grips.

Can be used with or without forward extension.

With all different adjustments grips are always parallel.

Expander is absolute and WILL RELEASE. Best material, construction and finish.

Write us for sample, prices, and electro for your catalogue.

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ADJUSTS AUTOMATICALLY

Relation Between Pedal Pressure and Road Friction Always Maintained.

In considering the merits of a changeable gear device, such as the Deterich, which was described in the *Bicycling World* some little time ago, the point is naturally raised whether a machine fitted with it would meet the requirements of hardy, speedy or powerful riders as well as of others not so favored.

It has been held that if the gear is automatically lowered when the road resistance increases it would also be lowered whenever greater pressure is applied to the pedals. This would, of course, be very undesirable. But those who entertain this theory mistake the principle of the gear. It is the road resistance or friction that causes the gear to be lowered, not the fact of applying more power to the pedals.

This is the error which a New England writer falls into when he says:

"One who has encountered steep hills and pushed against head winds appreciates the desirability of a low gear under such conditions; he is ready to sacrifice speed for power. But on the level, or where the wind is favorable, a high gear is much better; a machine geared to 80 or 84 is preferable to one geared to 60 or 70. The variable gear in good working order will meet the requirements of hill work, but on a level road it is by no means certain to be satisfactory.

"The majority of riders enjoy speed where road conditions permit, and increased speed requires power. As power is applied to the pedals, will the gear not be lowered automatically, so that the harder the cyclist works to get up speed the slower he will go, because of the unavoidable reduction of gear? This question has not been put by any writers who have discussed the variable gear. A statement, therefore, from one who has used a bicycle fitted with this gear will be very interesting."

This criticism is replied to by the inventor, who points out the working of the device thusly:

"The critic accepts the fact that increased resistance decreases the gear; he will furthermore find, if he takes the time to peruse the article in your paper, that power and resistance act opposite to each other, and that while the power tends to shift the floating ring in one direction the resistance produces a diametrically opposite shifting tendency.

"If, therefore, the power is increased, it will bring the floating ring in a more eccentric position, and thereby increase the speed of the wheel. If that is not the case, as the writer of the criticism thinks, then power and resistance would have same tendency, and no change of resistance would bring change of speed, which fact, however, was accepted by him.

"The fact is that with constant crank revolution and pedal pressure the gear increases

with a decrease of resistance, and vice versa. The fact is, furthermore, that with constant resistance the gear increases and decreases with the pedal pressure (and, of course, also with number of crank revolution)."

One Week's Exports.

Exports of bicycles and cycle material from the Port of New York for the week ending January 15, 1901:

Amsterdam—13 cases bicycles, \$325.
British Guiana—6 cases bicycles and material, \$107.
British Possessions in Africa—139 cases bicycles and parts, \$7,966.
British Australia—102 cases bicycles and material, \$4,205.
Bremen—11 cases bicycle material, \$520.
Berlin—1 case bicycles, \$25.
British West Indies—23 cases bicycles and parts, \$1,078.
British East Indies—14 cases bicycle material, \$478.
Brazil—1 case bicycle material, \$3.
Cuba—1 case bicycles, \$52.
Central America—1 case bicycles, \$35.
China—13 cases bicycles and material, \$857.
Dublin—3 cases bicycles, \$118.
Genoa—1 case bicycles, \$25; 52 cases bicycle material, \$2,345.
Hayti—1 case bicycles, \$10.
Havre—14 cases bicycles, \$534; 44 cases bicycle material, \$1,894.
Hamburg—97 cases bicycles, \$2,235; 64 cases bicycle material, \$3,720.
Liverpool—3 cases bicycles, \$90.
London—3 cases bicycles, \$130; 16 cases bicycle material, \$510.
Milan—19 cases bicycle material, \$295.
Philippines—33 cases bicycles and material, \$1,060.
Peru—1 case bicycles, \$20.
Rotterdam—1 case bicycles, \$25.
Siam—1 case bicycle material, \$150.
Southampton—3 cases bicycles, \$95; 3 cases bicycle material, \$262.
St. Petersburg—300 cases bicycles, \$6,936; 10 cases bicycle material, \$749.
Uruguay—22 cases bicycles, \$545.
Venezuela—3 cases bicycles and material, \$148.

How the Bubbles Burst.

Although West Virginia is, after New Jersey, one of the most popular States for those seeking to incorporate new companies, it loses annually, through failure to pay taxes, almost as many old concerns as it gains new ones.

Companies, domestic and foreign, are being incorporated at the rate of 1,200 annually in the office of the Secretary of State, while in the Auditor's office fully that number forfeit their charters. In the year 1898 1,107 failed to pay their license taxes, ranging from \$10 to \$50 a year. In 1899 747 companies failed to pay, and in 1900 1,200 charters were forfeited. Of these 1,200 412 were domestic and 788 foreign companies.

The total number of domestic corporations in good standing on May 1, 1900, was 1,541; foreign, 2,161. The collections on these incorporations by the Auditor in 1900 were \$140,000.

IF

OUR INDIANS

COULD SPEAK

they would probably execute a war-dance and exclaim

WHOOOP-LA!

And they would be fully justified, too.

The attention and commendation they received at the Cycle Show was little short of remarkable.

Dealers and riders were not slow to appreciate the the unusual values offered. Think of it:

Indian No. 1, 24 lbs. \$25.

Indian No. 2, 24 lbs. \$30.

Red Indian, 21 lbs. \$35.

Each sold with a year's guarantee.

There's nothing cheap about them but the price.

Specifications prove it.
Send for them.



BICYCLES
ELFINJust A
Little
Elfin
Bicycle

- may revolutionize your trade in Juveniles. Than other children's bicycles
- just a little lighter
- just a little trimmer
- just a little easier pedaling
- just a few more good talking points for the dealer in the Reversible Crank Bracket and Easy Chain Adjustment
- just a little better retail price
- just a little more profit to the dealer with a great big increase of satisfaction to his customer.
- it's

J u s t T h e s e
L i t t l e
T h i n g s
that added together one
by one, stamp the Elfin
as the

S t a n d a r d
J u v e n i l e
O f T h e W o r l d
and make the BIG DIFFERENCE IN YOUR JUVENILE TRADE.
Send for our illustrated catalog.

Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.

German Boycott a Failure.

In compliance with special instructions from the State Department, Consul-General Mason, at Berlin, has submitted a report setting forth the restrictions placed upon the publication of advertisements for bicycles and other American products by trade journals in Germany, and the failure of such measures to stop the influx of American goods.

The movement, states the Consul-General, dates back to 1896, when the growing competition of American bicycles began to alarm the German makers to a considerable extent. It was first attempted to secure an advance in the rate of duty on American wheels, but, failing in this, the Association of German Manufacturers adopted the plan of boycotting, so far as possible, the trade papers of the country printing advertisements of American wheels and bicycle parts. These trade journals were given to understand that they were to choose between the patronage of German bicycle makers and their foreign competitors, especially those of American nationality. Under this pressure most if not all of the German bicycle publications refused to accept American advertisements, and still maintain their restriction.

Consul-General Mason also states that a move to likewise exclude American sewing machine advertisements—even in the daily press—was set afoot. As far as the daily newspapers were concerned, this movement failed, as they refused to be bound by such a narrow policy, and freely accept advertisements of American products on the same terms as those of native origin. Some of the trade publications, however, which are dependent upon the patronage of the home trade, have been forced into excluding the American advertisements of this character.

On the whole, the publications which have been dominated by these movements are relatively of small importance, states Mr. Mason. The bicycle companies state that while at first the restriction hampered them somewhat, they now advertise in illustrated German periodicals to much better advantage.

Betts Makes Good Showing.

For a receiver of a bicycle company to be able to show a profit resulting from the operation of the factory—even though the profit is very small—is sufficiently unusual to attract attention.

The report of Frederick A. Betts, receiver of the Keating Wheel & Automobile Company, of Middletown, Conn., filed with the clerk of the Superior Court, for a period covering the months of December, does this. The factory has been operated at an apparent profit of \$278. The report is as follows: Receipts—Cash on hand, \$5,786.24; bills and accounts receivable, \$838.44; bills payable, \$5,000, a total of \$11,624.68. The expenses were: Salaries, \$500; labor, \$2,844.24; manufacturing supplies, \$441.77; fuel, \$324.84; general expenses and incidentals, \$1,409.40; cash on hand, \$6,064.43.

YOU

DON'T

need to

TALK

in order to

SELL

CUSHION FRAME

BICYCLES.

Simply put a
PROSPECTIVE CUSTOMER
on a

TRIAL WHEEL

with instructions to

RIDE IT 30 MINUTES,

and the

CUSHION FRAME

WILL DO THE REST.

Get your CUSHION FRAME
ORDERS in EARLY
to your manufacturer.

HYGIENIC WHEEL CO.,

220 Broadway, New York.

Owners of the Cushion Frame Patents.



SARTUS
BALL RETAINER
(The Original)

BEST ANTI-FRICTION.

618 BROADWAY, NEW YORK.



THE NEW "AUTO" BICYCLE PUMP.

Patented Oct. 9th, 1900. The barrel is 15 inches long and 1 inch in diameter. Will inflate the heaviest automobile tire. Provided with our patented air tight swivel. Has solid base and will stand alone. The finest and strongest pump made. Sample sent on approval. Electrotype for catalogues furnished free. Handled by all jobbers. Mention this paper.

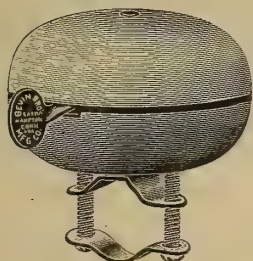
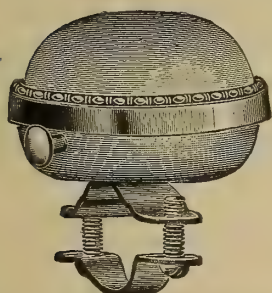
D. B. SMITH & CO., Utica, N. Y., U. S. A.

OUR SHOW-

ing of bells, lamp brackets, toe clips,
trouser guards and the like

IS SO ATTRACTIVE

in price, quality, appearance and variety that there are few in the trade whom we have not pleased or who we cannot please if given the opportunity.



Have YOU obtained catalog and quotations?

BEVIN BROS. MFG. CO., EAST HAMPTON, CONN.

(Business founded 1832.)

Motor is Removable.

Opinions differ—and will continue to do so for some time to come—as to whether the popular motor bicycle will be one in which the motor is only an auxiliary, requiring help from the rider at certain times, or an engine powerful enough to drive the machine anywhere at any desired speed.

Many arguments are available in support of each contention. So true is this that it is pretty certain that only the test of actual—and exhaustive—use of the machines on the road will avail to decide the matter. It will probably be years before the decision will be made, and in the mean time there exists a wide field for the exploitation of both systems of driving.

If the motor is to be merely an auxiliary it is highly important that it should be readily detachable, so that the machine can be used as an ordinary bicycle when anything goes wrong with the motor. A French inventor has solved the problem, as far as the introduction of the subject is concerned, and it must be stated that his solution seems to be an eminently satisfactory one.

The motor and all that belongs to it fit into a frame of bent tubes, and can be attached or detached from or to a cycle frame. On the cycle itself only the pulley for the driving belt, the drive ring on the rear wheel and the ignition contact on the handlebar have to be fitted. The fixing of the motor frame in the cycle frame, the attaching of the belt and the adjustment of drive ring and ignition wire take only a few minutes, after which the motor cycle is ready.

The whole apparatus weighs only twenty-eight pounds, is three inches wide and does not interfere with the free use of the pedals. The motor makes two hundred revolutions a minute, and can be used for a speed of twenty-five miles an hour. The benzine tanks once filled last for a distance of sixty miles, and the regulation of the fuel is the same as for other motors.

How Export Effort is Wasted.

"Circulars printed in English are a waste of time and money," writes United States Consul Thornwell Haynes, at Rouen, France. "Circulars come to this office giving the analysis of gas coal, etc. What does a man who talks, writes, speaks and thinks in French know about 'volatile matter' or 'fixed carbon' or 'ash'? A ton of 2,240 pounds is as indefinite to a Frenchman as the word 'some' is to an American. Quotations, to receive attention, must be put in French weights, and money in the French language."

Obtaining Value from Trade Papers.

One of the large industrial corporations in New England keeps a young woman constantly employed in reading trade journals. She has a regular system of marking items to call the attention of various heads of departments thereto, and makes clippings for scrapbooks of articles pertaining to the business. Every large industry would find profit in such a plan. Many valuable ideas are lost because people are too busy to read for themselves.

KEATING

World's Lightest

World's Strongest

World's Speediest

BICYCLES

THE FAVORITE MODEL 90

With or Without the Curve.

Equipped with

The Keating Noiseless Double
Roller Chain.

THE MOTOR BICYCLE THAT
IS A MOTOR BICYCLE.

WEIGHT 75, lbs.

We want good agents' Write for
prices on above and our
cheaper grades.

Keating Wheel and Automobile Co.,

MIDDLETOWN, CONN.

THE NULITE

750 CANDLE POWER

ARC ILLUMINATORS

Produce the finest artificial light in the world.
SUPERIOR TO ELECTRICITY OR GAS
CHEAPER THAN KEROSENE OIL

A 20th Century Revolution in the Art of Lighting.

They darkness into daylight turn,
And air instead of money burn.

No Smoke. No Odor. No Noise. Absolutely Safe.
They are portable. Hang them anywhere.

WE ALSO MANUFACTURE

TABLE LAMPS, PENDANTS, WALL LAMPS,
CHANDELIERS, STREET LAMPS, ETC.

The BEST and only successful
Incandescent Vapor Gas Lamps

made. They sell at sight. Nothing like them
A SNAP FOR BICYCLE DEALERS.

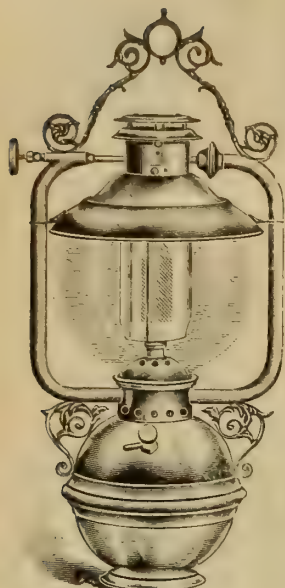
Agents wanted everywhere.

Write for catalogue and prices.

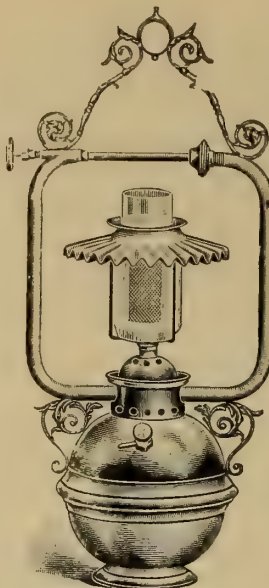
CHICAGO SOLAR LIGHT CO.,

56 FIFTH AVE.,

CHICAGO, ILL.



Outdoor.



Indoor.



HERE IT IS!

The Melvin
Automatic
Coaster
and Brake.

Thoroughly reliable, having been
tested for two seasons.
Write for
catalogue and
prices.

F. M. SMITH & BRO., - St. Paul, Minn.

GASOLINE MOTORS

FOR

Bicycles, Vehicles and Launches

AIR COOLED AND WATER JACKETED

ACCESSORIES AND PARTS

ALSO

Complete Sets of Castings and Working Drawings

LOWELL MODEL CO.

Box 292 LOWELL, MASS.

All American wheelmen who desire to keep themselves
posted upon matters concerning the cycle in Europe, its trade,
mechanics, and sport, should subscribe to

THE CYCLIST

AND BICYCLING AND TRICYCLING TRADES REVIEW.

The only recognized authority of English trade and manufac-
ture. Sent post free to any part of America for one year, \$3.25.
American manufacturers having novelties in machines or sun-
dries to introduce should advertise in

THE CYCLIST.

Terms on application to

ILIFFE SONS & STURMEY, Ltd.,
19 Hertford Street, Coventry, England.

Members of the American Trade visiting England are invited to
call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street,
Ludgate Circus, London, E. C.

HIGH GRADE

wheels must have the
best equipments.

There is nothing that gives more value for
the money than the use of the

MORSE TWIN ROLLER CHAIN



NOISELESS IN MUD, WATER OR
DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless
Rocker Joints. Insist on having the
Morse Twin Roller. Fits regular
sprockets.

Send for Catalogue and
Trade Price to

Morse Chain Co., Trumansburg, N. Y.

WE SELL ALL THE PARTS TO MANUFACTURE AUTOMOBILES.

CREST MANUFACTURING CO.
— CAMBRIDGEPORT, MASS. —



CREST GASOLINE MOTORS
— FOR —
TRICYCLES AND
AUTOMOBILES.

THREE, FOUR, AND FIVE HORSE-POWER MOTORS.
CREST INDESTRUCTIBLE SPARKING PLUGS,
Guaranteed. Price \$2.00.

Sheet Steel Bicycle Parts.

All Kinds of Metal
Stamping

THE CROSBY COMPANY, Buffalo, N. Y.

Chicago and Cincinnati.

The Monon Route and C. H. & D. R'y run
four trains daily from Chicago to Cincin-
nati. The day trains leave Dearborn Station,
Chicago, at 8:30 A. M. and 11:45 A. M., and
are equipped with elegant Parlor and Din-
ing cars. The Night trains leave at 8:30
P. M. and 2:45 A. M. These trains are
equipped with elegant sleepers and compart-
ment cars, the sleepers on the latter train
being ready for occupancy at 9:30 P. M. City
Ticket Office, 232 S. Clark St., Chicago. ***

The Bantam Mfg. Co., Bantam, Conn.,
have erected a two-story 120x30 shop, which
will be devoted to the manufacture of bi-
cycle hubs and other metal articles.

"IDEAL ADJUSTABLE HANDLE BARS"

for the coming season will be better than ever. And the
prices have been

REDUCED TO ROCK BOTTOM

prices for this class of goods. Send for quotations and cata-
logue.

IDEAL PLATING CO., 3 Appleton St., BOSTON, MASS.

L. R. HALL

Enameling and Nickeling Co.

ENAMELING, NICKEL-PLATING

and VULCANIZING for the trade.

Carriage Tires
Our Specialty.

4 PORTLAND STREET
BOSTON.

HAND AND FOOT PUMPS,

Oilers, Repair Tools,
Valves, Name-plates, etc.

Spelter Solder

Sheet Brass,
Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn
Depots: 210 Lake St., Chicago.
423 Broome St., New York.

The "FLEMING" Motor
LEADS.

Use it
on your
Motor-cycle.

Fleming Mfg. Co.,

93-95 Elizabeth St., New York, U. S. A.

Bidwell on Motor Bicycles.

As showing the place in the public attention now held by the motor bicycle, Collector George R. Bidwell is quoted by a local daily as saying at the show:

"I am a wheelman myself, and like to pedal, but I can see a great future for the motor bicycle. I saw it when I visited the basement, where the automobiles and motor cycles were darting around the underground track. I saw fat men and men with cork legs riding those motor cycles, and I realized that there was something which would take people out into the open air and give them healthful recreation which they might not get otherwise.

"It was not many years ago that I looked upon the game of golf with less favor, possibly, than I do to-day. But one day I was riding through the country on my bicycle when I came to a golf links and saw many people at play. Among them there were a particularly fat man and a cripple. I saw the benefits at once, and it was not long before I became an enthusiast myself."

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

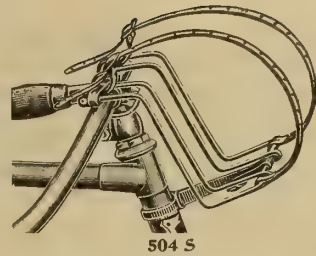
If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

To Acquire a Motorcycle Education.

"Motorcycles and How to Manage Them." The name explains the nature of the book. Price 75 cents. For sale by The Goodman Company. ***

Safety in This Oil Can.

A can for holding gasoline to be used in motor vehicles has just been turned out by a German firm. Outwardly it resembles an ordinary can, but inside, extending from the outlet to the bottom, is a pipe, pierced with holes throughout its entire length. Round this pipe is metal gauze, which acts, as does the covering of a Davy mining lamp, in preventing flame passing through it to the spirit. The new form of plug used has a brass cap, held in place by a solder having a low melting point, and capable of melting if a fire breaks out; it will thus allow any gas generated to escape, and so prevent explosion.

**LAMSON'S LUGGAGE CARRIERS**

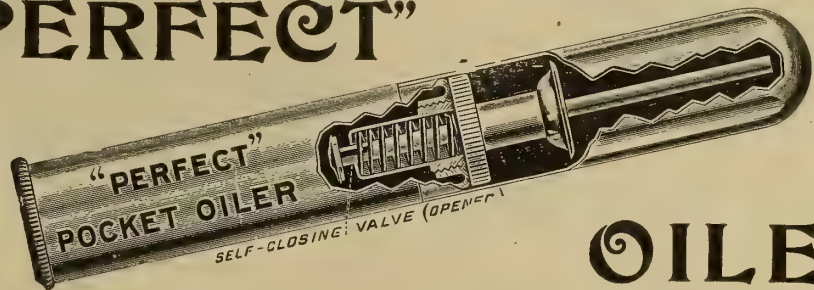
for Bicycles.

Made in several sizes and patterns. These staple carriers are known and sold the world over. All dealers should have them.

The Best All 'Round Carrier Ever Made.

Send for circulars and prices to the manufacturer,

C. H. LAMSON, PORTLAND, ME., U. S. A.

"PERFECT"

25c.

OILER.

Used by leading makers of high-grade bicycles. The only oiler that regulates supply of oil. CANNOT LEAK. We make cheaper oilers also, of unequalled quality.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.

MORROW COASTER AND BRAKE.Over **100,000** Sold Last Year.

Everyone Giving Satisfactory Service.

Make Your Cycle Saleable and Desirable by Fitting it with the **MORROW**.**ECLIPSE MFG. CO., ELMIRA, N. Y.**NEW YORK BRANCH:
105-107 Chambers Street.If
You are Interested
in Automobiles,**THE MOTOR WORLD**

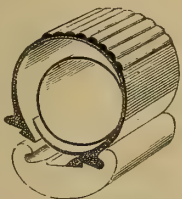
Will Interest You.

IT'S NOT LIKE THE OTHER KIND.

It's readable,
and you can understand what you read.Published Every Thursday
at 123-5 Tribune Building, New York.

\$2 per Year.

Specimen Copies Gratis.

**A TIRE THAT HELPS TO SELL THE WHEEL**

BECAUSE:

It is **DETACHABLE**, and therefore easy to repair.

It is handsome in appearance.

It is of the highest grade.

G. & J. TIRE CO.,**INDIANAPOLIS.****Conscientiously-Made Chains.**

That term describes the

DUCKWORTHS.

THEIR PRICE AND THEIR QUALITY MUST APPEAL TO ALL.

GET CATALOG.

Duckworth Chain & Mfg. Co., Springfield, Mass.

Selling Agents, Brandenburg Bros. & Wallace, New York and Chicago.

NEVERLEAK

STOPS LARGE PUNCTURES.

This is the only fluid that can be legally used in pneumatic tires. Suits now pending.

BUFFALO SPECIALTY MFG. CO.,
Buffalo, N. Y.



THE LAKE SHORE ROUTE

BETWEEN

Chicago and Milwaukee.

Frequent fast express trains at convenient hours.

All agents sell tickets via this popular route.

CHICAGO & NORTHWESTERN R. R.

TICKET OFFICES:

368 Washington St., Boston.
461 Broadway, New York City.
193 Clark St., Chicago.

The Best Advertising for the
Irish Trade is

THE IRISH CYCLIST

Specimen copy and advertising rates on application rates to

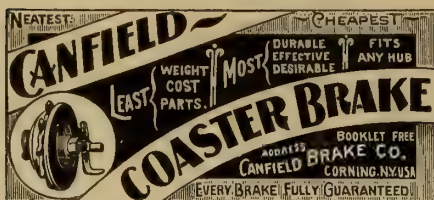
R. J. MECREDY & SON, Ltd., Proprietors,
49 Middle Abbey St., DUBLIN.

The Thorndike

Boylston St. and Park Square,

On the border of the most famous
Public Garden in America. BOSTON.

G. A. DAMON, J. L. DAMON, J. L. DAMON, Jr.



Through Train and Car Service in
effect April 29, 1900.

TWO FAST TRAINS

	"Chicago" Special Via Lake Shore.	"North Shore" Special Via Mich. Cen.
Lv. Boston	10.45 A.M.	2.00 P.M.
Due Albany	4.10 P.M.	7.35 "
" Syracuse	7.55 "	11.40 "
" Rochester	9.40 "	1.30 "
" Buffalo	11.40 "	
" Toledo	5.55 A.M.	
" Detroit		8.15 "
" Chicago	11.50 "	4.00 P.M.

The Finest Pullman Cars will be run on these trains.
Tickets and accommodations in sleeping cars for sale at City
Office, 366 Washington Street and at South Station.

A. S. HANSON, General Passenger Agent.

GOOD WORK GUARANTEED.

D. PATTINSON,
rear 48 Stanhope St., Boston.
(Opposite former location.)

EXPERT REPAIR WORK
OF ALL KINDS ON
BICYCLES AND AUTOMOBILES.
(Official L. A. W. Repair Shop.)

PATENTS GUARANTEED



Our fee returned if we fail. Particulars and our book "How to Secure a Patent" sent free. Patents secured through us are advertised for sale at our expense. Send sketch and description of your invention and we will tell you free whether or not it is patentable.

CHANDLEE & CHANDLEE
Registered Attorneys,
906 F Street, Northwest,
WASHINGTON, D. C.

Many have made fortunes from simple inventions.

SANGER ADJUSTABLE HANDLE BAR.

"THE ORIGINAL AND ONLY."

Patented October 10, 1899.

SANGER HANDLE BAR AND PLATING CO.

Milwaukee, Wis.



Via Rockford, Freeport, Dubuque, Independence, Waterloo, Webster City, Fort Dodge, Rockwell City, Denison and Council Bluffs.

DOUBLE DAILY SERVICE TO OMAHA

Buffet-library-smoking cars, sleeping cars, free reclining chair cars, dining cars.
Tickets of agents of I. C. R. R. and connecting lines.
A. H. HANSON, G. P. A., Chicago.

BOSTON & MAINE R. R.

LOWEST RATES
FAST TRAIN SERVICE

BETWEEN

Boston and Chicago,

St. Louis, St. Paul,
Minneapolis

and all points West, Northwest, Southwest.

Pullman Parlor or Sleeping Cars on all Through trains.

For tickets and information apply at any principal ticket office of the company.

D. J. FLANDERS, Gen'l Pass. & Ticket Agt.
BOSTON.



The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., January 31, 1901.

No. 18

UP TO HARTFORD

Must Prove That it has not Violated Tillinghast Agreement nor "Damnified" the Licensor—Text of the Charges.

Following hard on the heels of reports of renewed or continued price cutting on unguaranteed single tube tires has come renewed action on the part of the Single Tube Tire Co.

While the reports include several others, action has been taken against the Hartford Rubber Works Co., who as holders of a shop license and being exempted from the payment of royalties have occupied a rather unique position in the tire trade.

The Single Tube Co. has brought proceedings in the United States Circuit Court for the District of Connecticut, and, of course, prays for an injunction and accounting.

The complaint recites the plaintiff's ownership of the Tillinghast tire patents, No. 486,915, November 29, 1892, and No. 497,971, May 23, 1893, and the agreement of March 31, 1896, whereby the Hartford people were given right and license to make and sell the tires for the full term for which the patents were granted; "and as a part of the consideration of said agreement the defendant, among other things, agreed that it would not during the term of said license sell any standard 28-inch tires, embodying the inventions patented in any of the said letters patent, at a less price than \$6 per pair, or others sizes and grades in such proportions to said price of \$6, and on such terms, as were shown in a schedule annexed to said agreement, either directly or indirectly."

After reciting the sale, assignment and transfer by Dodge of his rights on December 14, 1899, "your orator further shows that on and prior to January 1, 1900, the said minimum price at which tires should be sold was changed from \$6 per pair to \$4.25 per pair for guaranteed 28-inch tires, without pump or kit, and \$2.75 per pair for unguaranteed 28-inch tires, without pump or kit, and the price was to be 25 cents less for each two-inch reduction in size of tire. It was understood between your orator and its other licensees that such reduced minimum prices should prevail from and after January 1,

1900, and such have been the minimum prices fixed and agreed upon between your orator and the defendant from January 1, 1900, to the present time, except that for a portion of the season of 1900, such season ending on or about September 30, 1900, the defendant was permitted to sell at slightly lower prices. To this extent only has the agreement of March 31, 1896, heretofore referred to, been altered, and as thus modified such agreement is still in full force."

It is then charged, upon information and belief—

(1) That the defendant heretofore and since January 1, 1900, and especially since September 30, 1900, has sold large quantities of guaranteed and unguaranteed single tube cycle tires at prices materially less than those named;

(2) That the defendant "intends and threatens to continue selling such tires in large quantities at such lower prices than he by said agreement agreed to sell at, and will do so unless restrained by the Court, and has agreed to sell and deliver a large quantity of said tires at such lower prices, which tires have not yet been delivered."

The complaint recites that in and by the agreement of March 31, 1896, it was agreed that the defendant should not be obliged to pay any royalties or license fees for the privilege of making and selling such cycle tires, there being other considerations for said agreement; but that since said date many other licenses have been granted by said Dodge while he owned the patent, and by the complainant since he owned the same, all licenses being similar in substance, except that in each of them a royalty or license fee has been reserved, "which other licenses are now in full force, and the income arising therefrom amounts to many thousand dollars in each year," it being understood that all the licensees should be placed upon the same footing as to prices, whether they paid royalties or not.

The complaint continues: "And your orator further shows that if the defendant shall be allowed to violate his said agreement, and to sell at such lower prices, in consequence of his not having to pay any royalty, as aforesaid, he will be enabled to undersell all other licensees by the whole amount of the license fees or royalties so agreed to be paid by them, and will give to the defendant a

(Continued on Next Page.)

MAKING IT A FELONY

California Tradesmen Join in the Effort to Subdue the Bicycle Thief.

Inspired by the San Francisco Cycle Board of Trade, a bill making cycle stealing a felony is now well on its way through the California Legislature.

The bill is fathered by Assemblyman Melick, and passed the Assembly last week by a vote of 46 to 20. Press dispatches state that the debate was exciting, and certainly it was interesting and instructive.

Assemblyman Cowan, speaking against the bill, said that it was not the purpose of the Legislature to pass Neronian laws for the punishment of special offences. The present law was adequate. Carter, of Los Angeles, said that in Southern California the bicycle was a necessity and not a luxury. In that section there is an organized gang of thieves which makes stealing bicycles its object.

Savage, of San Pedro, said he was there not in the interests of any organization or to legislate for Southern California alone, but to legislate for the entire State. The bicycle was generally in use all over the State, and a law should be enacted that would make the penalty so severe as to check the thieves. Myers advocated the measure on the ground that bicycles are easily transported and not easily identified. Melick said this was provided for in the law at present, and would defeat the entire purpose of it all, and the amendment was voted down.

The bill was passed by a vote of 46 to 20.

Horsman Creditors Will Get Half.

At a meeting of the creditors of E. I. Horsman, 330 Broadway, New York, held on Monday in the United States District Court, Brooklyn, it was announced that the creditors would be paid 50 cents on the dollar. It was agreed to adjourn the meeting until March 7, in order that a meeting to effect a compromise might be held in the mean time.

The parcels-post convention has been extended to Venezuela, New Zealand, Nicaragua and Guatemala; it should facilitate the sending of samples to those countries.

(Continued from Page 493.)

virtual monopoly of such pneumatic tires and will deprive your orator of all the license fees and royalties which he would otherwise receive from such other licensees, and will in other ways greatly injure and damnify your orator to the extent of much more than \$2,000; and your orator has no adequate remedy at law and will be greatly and irreparably injured and damaged unless relieved by this Honorable Court."

"Your orator" then asks that "the defendant may, if he can show why your orator should not have the relief hereby prayed, and may make a full disclosure and discovery of all the matter aforesaid, and according to the best and utmost of his knowledge, remembrance, information and belief, your orator prays that the defendant may full, true, direct and perfect answer make to the matters hereinbefore stated and charged; but not under oath, an answer under oath being hereby expressly waived."

The plaintiff then prays for an injunction, accounting and an award of damages.

The complaint is sworn to by James H. Rice, vice-president of the Single Tube Co. Colonel Theodore A. Dodge, president of the company, is now in Lakewood, N. J., recovering from an attack of pneumonia, and at his office in this city nothing can be learned of suits which it is reported are being prepared against other alleged violators of the Tillinghamst agreement.

Foreign Combine or Carbide.

As the result of a convention held in Frankfort, Germany, the Swiss, Austrian, Swedish, Norwegian and German manufacturers of calcium carbide have combined in establishing price schedules and a mode of controlling the sale of their products.

The Deutsche Gold und Silber Scheide-Anstalt, of Frankfort (which has branches in the United States and other countries), was appointed the sole agent for the sale of the syndicate's products. It is expected that by this combination the acetylene industry will be considerably strengthened. The members have adopted measures to avoid the fluctuating and ruinously low rates which, owing to heretofore existing sharp competition, have made the manufacture of their products unprofitable.

Incidentally, the year's production of calcium carbide in Germany is estimated at 20,000 metric tons, equivalent to 360,000 hectolres (9,500,000 gallons) of petroleum.

Looking After Their Workmen.

Educational classes are being formed among the workmen of the Snell Cycle Mfg. Co. and other industrial establishments in Toledo, O., by an association which has taken up the project. The classes scheduled are business practice and commercial arithmetic, free-hand drawing, mechanical drawing and higher mathematics.

In the ten years of its existence the Dunlop Tire Co. has earned profits aggregating £2,777,616; in round figures, about \$13,888,000.

TO-DAY'S "LIBERTY BILL"

Importance of the Gasolene Act now in Congress—Support Needed.

Only the shortness of the present session of Congress appears to stand in the way of the passage of the Gasolene bill offered in the United States Senate by Senator Platt, of New York. The bill is strongly supported by both users of motor vehicles propelled by gasolene and by officials of the ferries, which are now debarred from transporting them.

The bill in question, which is officially designated as S. 5427, has been issued in printed form, as follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section forty-four hundred and seventy-two of the Revised Statutes be amended by adding thereto, at the end of said section, the following:

Nothing in the foregoing or following sections of this Act shall prohibit the transportation by steam vessels of gasolene or any of the products of petroleum when carried by motor vehicles (commonly known as automobiles) using the same as a source of motive power.

Provided, however, That all fire, if any, in such vehicles or automobiles be extinguished before entering the said vessel and that the same be not relighted until after said vehicle shall have left the same: Provided, further, That any owner, master, agent, or other person having charge of passenger steam vessels shall have the right to refuse to transport automobile vehicles the tanks of which contain gasolene, naphtha, or other dangerous burning fluids.

The object of the bill is to rescind those sections of the Revised Statutes of the United States which prohibit the carriage of such inflammable substances on ferryboats in any form whatsoever. If the bill is passed in its present form, as amended, that prohibition will be withdrawn.

The bill has already undergone several stages of advancement. Its object will readily commend itself to all owners and users of motorcycles, as under the present statutes the carriage of such vehicles using gasolene is surrounded by almost insurmountable difficulties, especially where the rules are strictly enforced. So far there has been no opposition to the measure, but this is not in itself sufficient to insure its passage, so great is the number of bills presented to Congress; and as the present session is a short one, ending on March 4, the chances of its being sidetracked are very great unless pressure is brought to bear for the purpose of securing its passage.

It is therefore of the greatest importance that every effort be made to secure the support of Congressmen for the bill, and all motorcyclists are urged to take the matter up

with them, either personally or by letter, and secure, if possible, an expression of opinion from each one.

Especial attention is called to the importance of securing the support of members of the lower house, as it is feared that there, if anywhere, the delay will come.

Ferry officials urge the passage of the bill because it will relieve them from a present source of annoyance. It is necessary to inspect every motor vehicle that enters the ferry house to ascertain its motive power. If it is propelled by gasolene the tank carrying this inflammable fluid must be emptied before it is allowed on the boat. Then ferry hands and the man in charge of the vehicle have to push it on the boat.

All this occasions delay and interferes with other vehicles. When the boat has reached its slip on the other side of the river the vehicle has to be pushed off, and the driver has to hunt up a new supply of gasolene for the machine.

Captain Charles Carroll, superintendent of the Pennsylvania ferries operating between New York and Jersey City, is quoted as saying that the law was passed to guard against the danger of fire on a passenger steamboat from carrying highly inflammable liquids. The law was made at a time when automobiles were unheard of, but it operates to prevent the transportation of gasolene or naphtha propelled vehicles on ferryboats unless the tank containing the fuel is emptied.

Captain Carroll declared that a few gallons of gasolene in the tank of an "auto" would not greatly increase the danger of fire on a ferryboat. The law is strictly observed by all the ferries crossing from New Jersey to New York.

Home of the Clipper is Sold.

With the sale of the factory plant of the Grand Rapids Cycle Co., which took place last week, the final chapter in the history of that once flourishing corporation is written.

By the sale, the property passes into the hands of Levi E. Ewing, president and manager of the Grand Rapids Match Co. The consideration was \$35,000, of which \$20,000 was paid in cash.

Mr. Ewing said that he had no definite plans to announce as regards the future use of the factory plant.

The Grand Rapids Cycle Co. has held its existence as a corporation since going out of the manufacturing business for the purpose of holding ownership of the plant.

Swifts do Poorly.

Just over \$30,000 profits is the rather discouraging report made to the stockholders of the Swift Cycle Co., which but a few years ago counted its profits by the hundreds of thousands of dollars. Consequently no dividend is paid on the ordinary shares, but the consoling statement is made that "the prospects for the coming season were very much brighter, and that the sales for the first quarter of the present season were two and a half times greater than for the corresponding period of last year, and also considerably in excess of 1898."

FLOAT FEEDS, NOW

Englishmen With an Alleged "Master Patent" Threaten to Make Trouble.

Horns have been locked and a legal battle royal begun in the British motor vehicle trade over various so-called "master patents" on essential features of motor vehicle construction owned by one party to the contention.

The matter is of interest to the motorcycle trade in this country, notwithstanding the remoteness of the scene of conflict, by reason of the fact that the patent selected to be first enforced is that on the float feed carburetter, which is now being used by several makers here, as well as on account of several remarkable features of the campaign which has been inaugurated.

Of the latter, one is that a preposterously exorbitant royalty has been demanded by the owners of the patent, while the first people moved against have been, not the vehicle makers using the carburetter alleged to be infringed, but the users thereof. As may be imagined, there is a prodigious hue and cry, and no one can foretell the outcome.

The cause of all the trouble is the Maybach patent, No. 16,072, of 1893, for a "Float Feed Carburetter." This is a device for making the mixture of gas on the spraying or atomizing principle, the gasoline being led from the large tank to a small reservoir through a nearly square piece of cork, which also serves the purpose of keeping the gasoline at a uniform level. From this reservoir the liquid is sucked into another chamber and there sprayed and diluted with air before being conducted to the explosion chamber.

In addition to issuing a public warning by advertisement, the British Motor Traction Co., the owner of the Maybach patent, recently sent written notices to several hundred users of vehicles using this type of carburetter, calling upon them to mail forthwith a check for one-tenth of the list prices of their vehicles, less the cost of the bodies. Of course, the persons notified appealed for protection to the makers of their vehicles.

The latter have responded by booming the Automobile Mutual Protection Association, Ltd., the name being self-explanatory. Current issues of the British motor press contain page after page of advertisement of this association, the space being donated by the various independent companies forming or supporting it. The objects of the association are thus set forth:

"The object of the association is the protection of those interested in the motor vehicle industry, whether as manufacturers, agents or vendors, and also the private users of motor vehicles, against the threats and claims that have been made by the proprietors of certain alleged letters patent ever

since the inception of the automobile industry in this country.

"The setback the motor industry in this country has experienced owing to the position taken up by the proprietors of these alleged 'master' patents is now universally recognized, and the general feeling in the trade is that no great advance can be made until the question of these patents is settled.

"To this end this association will work by inquiring into the cases of such members as are threatened with litigation or from whom royalties are demanded, advising them as to their position, and, if thought advisable, supporting them in their action.

"To enable this end to be achieved the association needs the support not only of members of the trade, but also of the private users of motor vehicles.

"It must be distinctly understood that the association does not dispute all patents, but, on the contrary, may lend its aid in upholding any patents which the committee consider to be valid and useful to the interests of the industry and sport.

"The objects of the association include the protection of private users who are members thereof.

"The annual subscription to the association is £2 2s., and each member may guarantee any further sum or sums to the funds of the association, and his liability is limited to the amount of such subscription and guarantee.

"Application for membership should be made to the secretary."

Bicycles and Tires in the Philippines.

The Taft Commission, which the Government sent to the Philippines to decide what was best for the Filipinos, has already begun to submit reports and recommendations.

After reporting that \$1,000,000 had been set aside for road improvement, the Commission states, among other things, that "bicycles are being imported in constantly increasing numbers, and the market for them is sure to grow steadily better."

European bicycles were introduced about 1890, but were purchased only by wealthy residents, and the total number reached, it is said, was only about two hundred. Last year American bicycles were introduced, and there are now some two thousand of them in the city of Manila alone. Projected improvements in the roads ought to exert a strong influence on the sale of bicycles.

"The demand for tires will be disproportionately large, as rubber does not last well in this climate," concludes the report.

Marion Plant to Make Gas Engines.

The Marion Cycle Co. plant at Marion, Ind., has been purchased by George Gemmer, of Racine, Wis., who has organized a company, capitalized at \$30,000, to manufacture a newly invented gas engine of his own design. The stockholders of the company, besides Gemmer, are Philip Matter, B. F. Burk, T. H. Beddell and J. Stubblebenn, all of that city.

USES TWO TREMBLERS

Simple Device That Adds to the Efficiency of the Motorcycle.

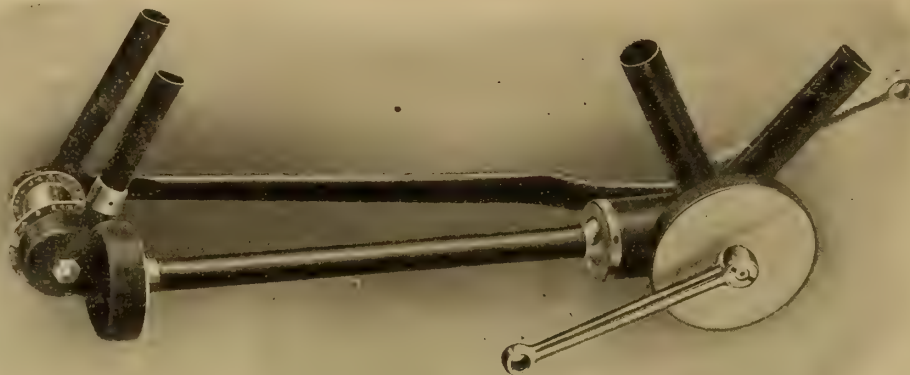
London, January 16.—The other day I saw a tricycle having an arrangement specially to insure easy starting, which seemed, if anything, better than Farlow's compression tap, although I hear very good reports of the latter device. It seems to me that if the two were used jointly all difficulty would be at an end.

In Farlow's tap it will be remembered that there is a non-return valve, so that, although the contents of the cylinder are easily expelled, cold air, containing no gas, cannot be drawn in. The result is that so soon as the piston commences its downward stroke after having expelled the contents of the cylinder through the compression tap, it opens the inlet valve from the carburetter, thus drawing in a proper supply of mixture ready for ignition. This tap gets over the difficulty of proper mixture, but does not always insure a correct spark. With the usual trembler the contact screw frequently requires adjusting, and in order to insure good starting it must be exactly right.

On the machine I saw two tremblers are employed, placed side by side and attached to the same insulating plate. On the two-to-one shaft is mounted a secondary cam, cut exactly like the usual one, but placed with the notch slightly advanced, say, about a quarter of an inch. Upon this cam the second trembler works. Both tremblers are controlled by the usual timing lever, which is not altered in any way. The result is that two sparks are given, one slightly behind the other, owing to the distance which one notch is advanced relatively to the other. If one of the contact screws is not perfectly adjusted the chances are that the other is correct, and so the motor starts, when, as it gets up its speed, the imperfectly adjusted screw will come into action, as the vibration will cause the trembler to work. In addition, the double spark will be an almost certain cure against misfiring.

The arrangement really means very little alteration, and it can be fitted to any motor of this type in a very little time. The rider of the machine upon which this plan was adopted told me that he never had any trouble in starting, and that when he thought it necessary to make any adjustment of the contact screws he adjusted both at the same time, judging of their correct contact by the sound as they vibrated in the notches. The idea certainly seemed to work well, and, in conjunction with Farlow's tap, should prove a boon to those motorists who have difficulty in starting.

Of course, it may be said that there will be more battery current used, and this is no doubt correct; but, after all, that is not a serious matter, because batteries are fairly cheap and will soon be cheaper. Anyway, the small additional cost of running will be well repaid by the certainty of good firing.




NATIONAL CHAINLESS FITTINGS

of their own kind. Not like others. Our own design and manufacture. No small screws or bolts to work loose. No split cases to leak oil. Simple, compact, praiseworthy, satisfactory. When you sell Nationals, you sell specialties. Get catalog.

NATIONAL CYCLE MFG. CO.,

BAY CITY, MICH.



Fisk Tires

The Road Rider.

The road rider requires a tire which is not only resilient and speedy, but one that is not easily punctured, and which will stand the wear and tear of country roads and ever-changing conditions.

Such a tire is the Fisk No. 88. It will stand more hard usage, wear longer, and give greater satisfaction while it does last than any other tire on the market.

Easy to ride, hard to puncture.

Light enough to be comfortable, strong enough to be durable.

You will secure an introduction to pleasurable riding the moment you purchase Fisk tires. They perch on the top round of the ladder of excellence.

FISK RUBBER COMPANY, Chicopee Falls, Mass.

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, JANUARY 31, 1901.

Orders for "Motocycles and How to Manage Them" can now be accepted only subject to delay. The edition has been exhausted and the book is being revised and brought up to date. Deliveries cannot be promised before the end of February.

Where Uniformity Does not Prevail.

It is a curious fact that fork crowns have been the conspicuous example of cycle construction which has been frequently changed for the mere sake of change.

It is indisputable that any one of half a dozen or more styles of crowns is, when properly designed and constructed, equally as strong and efficient as any of the others.

Yet the change has been made from one to another, and back again, and for no earthly reason except that fashion demanded a change, or one was considered a good thing in order to give a machine distinction.

The square drop forged crown with lugs to take the sides, the double and triple plate crowns, the arch type—all of them, and with them infinite and minute variations, have ap-

peared, had their brief day of glory, and been displaced.

No one of them could be criticised on the ground of lack of stability, scarcely on that of rigidity.

Yet one after the other was displaced to make room for its successor. One type was more "refined," another more in keeping with the remainder of the bicycle, a third more massive and substantial. So proclaimed some fashion dictator, and the bulk of the trade followed the lead incontinently.

At the present time makers and designers are all at sea in the matter of fork crowns. There was a greater diversity of types on exhibition at the recent show than at any time since the safety came in.

For the first time in many years there is no popular type. Each maker or designer fashions his crown as he sees fit. There is no one to point a finger at him and say that he is out of fashion.

A popular type will be evolved sooner or later, of course. In the mean time no great harm is being done by this partial lapse into the charming lack of uniformity which prevailed in the early nineties.

Prefers to Risk it.

In the early days of the pneumatic tire few riders dared to ride far afield without a pump. In fact, they were more dependent on this little article than any other appertaining to the bicycle.

The occasions when it was called into requisition were exceedingly numerous, and it was almost impossible to repair the omission when, through carelessness or otherwise, it was left at home.

The rapid and tremendous growth of cycling changed all that. Riders got into the habit of going without a pump, knowing that they could at almost any time find a place where one could be procured; while on the rare occasions when it happened otherwise the chances were that a more provident rider could be laid under contribution.

The "boom" is over, but the same conditions prevail. Riders go without pumps as of yore. They are needed less frequently, and at such times it is reasonably certain that a pumping station can be found on almost any frequented road. It is seldom, therefore, that the lack of a pump causes inconvenience.

Nevertheless, when such a thing does happen its infrequency does not materially lessen the annoyance felt.

Freedom from tire troubles only serves to make the rider less tolerant of them. Occa-

sionally he will view the matter in a philosophical light, but usually he will rage at his tire for going wrong or at himself for his neglect.

In spite of the fact that pumps are better as well as cheaper, it is almost futile to hope that a change for the better will take place.

Improving the Detroit Resolution.

The action of the Detroit Cycle Board of Trade in resolving and binding its members not to handle any adult's bicycle listing at less than \$25 has scarcely attracted the attention it merits.

It was a step that required some little courage; it is capable of strong argument, pro as well as con, but we agree with the Detroit dealers that it makes for the best interests of both trade and public.

It naturally affords an opportunity for the price-cutter to raise his voice and to make capital for himself, but the fact should not deter dealers elsewhere from emulating the Detroiters.

While sufficient for themselves from the public standpoint, the Detroit resolution was rather blunt and unmeaning and capable of creating false ideas.

It would have been better far had the resolution itself been preceded by a preamble stating that the wisdom and experience of the members of the organization having conclusively demonstrated that a trustworthy bicycle cannot be made and sold for less than \$25, and having in view the best interests of the public, no less than their own, be it resolved, etc.

In this form a resolution of the sort leaves nothing for doubt or speculation, and is rather calculated to win confidence and make friends for the enacting dealers.

The Detroit stand deserves emulation, but when the resolution is under consideration we urge that thoughts of a preamble such as here suggested be not permitted to escape.

Different Points of View.

Instead of subsiding, the movement commented on some weeks ago toward changes in frame designs on British machines appears to be gathering strength.

For several years there has been a strong tendency across the water to multiply frame and front fork tubes. Many machines have duplex chain stays, a few have added an additional tube to the upper rear forks, and instances of double front forksides are not uncommon.

Until recently, however, the front half of the frame has been left untouched, save by

one or two firms. The addition of a large parts making firm to this list, however, and their persistent advertising of the fact, has started the ball rolling in this direction.

New frames, all with a supplementary tube to the forward portion of the frame, are springing up with great rapidity. Even the firms which have held aloof from the movement feel constrained to state their reasons for so doing, and assert that their patterns are so satisfactory that they need no change.

Consequently a wordy war is being waged in the British cycling press. Reading pages even are laid under contribution to voice expressions of assent or dissent to the new doctrine of frame construction, and there seems no end to the supply of arguments pro and con.

While there is little doubt that the old style frame will be in the majority during the coming season, there will undoubtedly be a large and influential minority pulling in the opposite direction. They will sing the praises of newness as well as of greater strength and rigidity, and there is no telling how far the public will go in their support.

No plainer proof of the complete divorce between British and American points of view and ideas could be desired than is here furnished.

In this country neither trade nor public pays the slightest attention to what is going on in the "tight little isle."

The diamond frame, in all its pristine simplicity, is held to be satisfactory, and no movement having a change in view is even talked of, much less started.

It is well that this is so, for it would take some missionary work to convince the public that a change was desirable.

Shaping the Selling Force.

The communication from Secretary Finkenstaedt, of the National Cycle Mfg. Co., published in another column, is no small contribution to a subject that deserves the thought of the whole trade.

Coming from one who practices what he preaches—from one who is really striving to "educate the marketing channels," it is the more deserving of notice.

While deploring the shrinkage of prices and profits, it is not to be denied that the manufacturer has given small thought to the education of those who market his product, the traveling salesman and the dealer. He has been content to believe that his name and fame were the only tailmen that traveler and agent need call to their aid to

effect sales, and the traveler and the agent have in turn shared the belief and conducted business on that line. Mr. Finkenstaedt's adroit statement to this effect rests on substantial foundation.

But name, fame and price have lost much of their potency. The cycle trade, the retail trade, in particular, is undergoing a process of regeneration. Wisdom teeth have been sharpened, and he will serve himself best who looks beyond mere generalities.

The dealer who devotes himself more to details and convincing argument, who will take apart a bicycle and show the intending customer just why he should pay more for one bicycle than another is the dealer whose balance sheet at the end of the season will show the best profits and whose roll will be of satisfied customers. Two weeks since we brought to bear the testimony of dealers who work on this plan, a plan that brought increased sales even during so-called slump years.

Generalities may glitter, and glittering may bedazzle for the moment, but point for point demonstrations and arguments serve best in the end, and as Mr. Finkenstaedt asserts and has demonstrated, it is within the scope and power of the manufacturers to so shape the selling force of ones establishment.

Georgia's One-Sidedness.

The Georgia correspondent, who, in another column, inquires concerning the constitutionality of the Georgia tax on cycle dealers and repairers, asks a large question.

His own query shows the odious one-sidedness of the law, but when the wealth of many manufacturers sought, unsuccessfully, to attack its legality, the more modest merchant would seem to have small chance of effecting reform by the judicial route.

The Georgia dealers must wage their battle within their own confines. They must interest their own press in their cause and if love of equity and fair play permutes the State, the very arguments which Mr. Perry recites elsewhere should make the law stink in the nostrils of the Georgia people and compel its repeal.

Chance for Telling Comparisons.

One of the Long Island Automobile Clubs has undertaken an "endurance contest." Motocycles—"the automobile of the masses"—are barred, however, by a narrow rule that smacks of snobbery.

It would teach the Long Islanders some-

thing did some one conduct an "endurance test" of motorcycles over the same course. The public, too, would share the education.

Comparisons of the results of the two tests would hardly fail to redound to the credit of the motorcycle.

The suggestion may be worth the attention of the Associated Motocyclists.

Hope springs eternal in the cycling breast as well as in others, and the optimism of the cycling trade bids fair to become proverbial. Therefore, the fact that a more than usually hopeful view of the coming season is being entertained in many quarters is not likely to count for much with conservative observers. Nevertheless, this feeling exists, and only the actual experience of another bad season, which, let us hope, is not to be, will avail to dissipate it.

That men should be able to encompass nearly forty thousand miles on a bicycle within a twelvemonth is in itself a stunning performance. That two men should closely approximate this mileage, each on a single pair of tires—the tires themselves being of two differing brands—is a remarkable tribute to American tire manufacture.

Write your Senator in Congress urging the passage of the Gasolene bill, No. S5,427. It is a most important measure in the interests of motorcycles and progress generally and merits your support. Write to-day. Don't be content with the belief that the other fellow is writing and that your letter is not needed.

But one "swivel" handle bar was noticed by an observer at the English shows. If by this is meant what we term adjustable bars it illustrates the difference between construction in the two countries. At our show it would have been difficult to find one handle bar that was not adjustable.

While the French gentleman who is "agin" coaster-brakes because a cooling coast down after a heating climb up hill may possibly induce chills or pleurisy or some other ailment does not belie the country of vivid imagination, he also suggests Don Quixote—he is tilting at windmills.

According to consular reports, an increase in the price of kerosene and a decrease in the price of carbide in Germany are stimulating considerably the trade in acetylene house and store lamps. The fact should interest our lamp makers not a little.

PHILADELPHIA'S SHOW

Despite Local Conflication it Makes a Brave Front—Those Who are There.

"Neither fish nor fowl nor good red hering," is the first comment made on the exhibition of cycles, motorcycles and automobiles promoted by the Philadelphia Cycle Board of Trade, which opened at the Third Regiment Armory on Saturday last.

Something of the sort was inevitable, owing to the clash between this show and the one which opens on Monday next under the auspices of the Pennsylvania Automobile Club. Under the circumstances, it would have been much better for the managers of the present show to cut loose from the automobile end of the game and confined themselves to cycles and motorcycles. They would thus have avoided a conflict, which was certain to injure both parties to it, and appropriated the glory of coming out good and strong for the fast coming motorcycle in conjunction with the older bicycle.

All things considered, however, the show has been more successful than there was any reason to expect before the opening of the doors on Saturday night. At that time it was very far from being a completed show; many of the exhibits were not in place, and it was not until the beginning of the week that these shortcomings were made good.

Even with this improvement, however, the showing is very far from being a representative one as regards any of the three classes of vehicles attempted to be covered. This will be seen by the subjoined list:

H. Kohn.
Monarch Fire Appliance.
Fisk Tire Co.
American Dunlop Tire Co.
Delaware Rubber Co.
P. & F. Corbin.
Union Truck Co.
Rose Mfg. Co.
Searchmont Motor Co.
Bridgeport Bell Co.
Milwaukee Steam Carriage Co.
Twentieth Century Mfg. Co.
Edward Miller & Co.
McKee & Harrington.
John Leng's Son & Co.
Admiral Lamp Co.
Frank Mossberg Bell Co.
Charles Krause.
Canfield Brake Co.
Puritan Lamp Co.
W. C. Young.
Motor Vehicle Power Co.
L. A. Heppe.
George W. Robb.
R. D. Garden.
Wood's Electric Vehicle Co.

Hartford Rubber Works Co.
H. B. Hart.
E. R. Thomas Motor Co.
Donlevy & Kern.
W. E. Roach.
Standard Motor Vehicle Co.
M. Costa.
B. F. Goodrich Co.
American Electric Vehicle Co.
J. A. Wells.
James A. Garner.
Loomis Steam Engine.
American Bicycle Co.

Of the motorcycles, those of the Thomas Motor Co.'s manufacture—represented in Philadelphia by H. B. Hart—were by long odds the most prominent in the show. They included both the Auto Bi and Auto Tri—the bicycle and the tricycle—and were the recipients of a vast amount of attention. Only a few independent makes of bicycles were shown, these including the National and the Lyndhurst. The Garner Detachable bicycles which made such a hit at the New York Show were also exhibited, as was the Admiral combination lamp and other sundries. The automobile exhibits included the New Home carriage, made by Grout Bros., Orange, Mass., and the Searchmont wagonette.

A ten lap track had been put down, and was made good use of for trying the various motor-propelled vehicles. The automobile prize contests were also held on it.

The attendance was sufficiently good to put the exhibitors in a good humor, especially in view of the rather gloomy anticipations which had been entertained on this point.

Matlack and His Mileage.

Of their \$1,000 prize competition, made public by the Hartford Rubber Works Company early in the season of 1900, the first award has been made, that to the rider who during the year succeeded in making the greatest bicycle mileage on a single pair of Hartford tires.

A. L. Matlack, of Camden, N. J., is the fortunate individual; his total mileage for the year was 38,205 miles. His records made in accomplishing this mileage are not less remarkable. They are: Thirty day world's mileage record, 5,678 miles; thirty day world's century record, 51 centuries; sixty day world's mileage record, 10,491 miles; sixty day world's century record, 89 centuries; National century record for the year, 261 centuries; National consecutive record, 502 days; consecutive century record, 32 in 374½ hours.

Mr. Matlack finished this mileage in perfect physical condition, and it was only while making the sixty days' century record that he felt the strain of this work, from which he quickly recovered.

The mileage and records mentioned were all made under the rules of the Century Road Club, and tell their tale of men and tires better than mere adjectives.

YEAR'S LOSS, \$1,759,223

Statistics Show that Shrinkage of Export Trade—Greatest Loss in Germany.

The totals of the cycle exportations for the year 1900 were made public by the Washington authorities this week.

The publication of the figures each month quite prepared every one for the shrinkage which the statistics show, so that none will be surprised by the loss during the year of \$1,759,223 in foreign trade which the statistics report.

The figures follow:

1900	\$3,061,061
1899	4,824,284
1898	7,092,197

The heaviest loss is in the trade with Germany, the business shrinking from \$807,015 in 1899 to \$340,944 in 1900.

The greatest gains were made in Japan and the Philippines. In the case of the former the business increased from \$138,155 to \$245,622; in the case of the Philippines, from \$2461 to \$71,738.

Cleverness in Seat Posts.

The automatic seat post of the Ideal Plating Co., Boston, which is now ready for delivery, is fit to rank with the clever conceptions of the year.

The post is made with an internal binder, and is claimed to be the only post on the market affording a tilt of the saddle to any angle wanted without the use of a wrench. When one desires to adjust the saddle to a different position, he simply strikes under horn of saddle with palm of hand and pulls out saddle post. To tilt the saddle backwards, screw cone up with thumb and finger. To tilt saddle forward, screw the cone down, then insert saddle post into frame, and strike horn of saddle with palm of hand, and the Ideal people will guarantee it to hold as firmly as any adjustment made for saddle post. The adjustment is made without tools of any kind, and can be done in the fraction of a minute.

The workmanship and finish of the post is of the character for which the Ideal people are noted, and with which their handlebars have familiarized the trade.

Result of Rubber Scarcity.

It is stated that the Forest Administrators of India intend to plant an island in the Mergui Archipelago with india-rubber trees, with a view to meeting the demand for rubber. It is expected to place the rubber on the market in five years.

Its Misleading Title.

Under the taking name of the "Micrometer," suggestive of fine workmanship, an English concern has brought out a "free wheel" device of the familiar pawl and ratchet type.

“The Hit of the Show”

We have waited until the Show was finally over—Till the last man had gone—Till the lights were out—Yet, not one dissenting voice—All impartial judges were loud in their praise of

Wolff-American Regal and Holland Bicycles

The complete lines—

The superb finish—

The mechanical simplicity—

The new features—

The perfection in detail—

The high class equipment—

Making the most attractive and best selling line for agents to handle.

We are closing agencies fast—Better have a care as to your own section
Write us for money making proposition.

STEARNS BICYCLE AGENCY,

Distributors of Bicycles,

SYRACUSE, NEW YORK.

FRENCH PECULIARITIES

Typical Argument Against Coaster-Brakes—
Where Old Models Would Sell.

Paris, Jan. 15.—One of the writers of the Paris cycling press who is perhaps the leading authority on touring in this country, M. Maurice Martin, has just been giving a complete analysis of the cycling statistics for 1899, which have already been published in these columns, and he draws therefrom certain deductions which are likely to be of the greatest interest to the cycle maker.

The tax returns have been steadily improving, from 203,026 in 1894 to 484,414 in 1898 and 838,856 in 1899. The big jump in the last two years has been specially striking, but this can only be explained by the new regulations, which make it impossible for any one to avoid paying the tax, and a considerable number of cyclists who wriggled out of it in previous years were obliged to declare their machines in 1899. The returns are not yet available for the last year, but it may reasonably be supposed that, including the machines used in Government service by postmen and others, the number of bicycles has now reached the phenomenal figure of one million.

Taking the number of machines declared in the various departments, it is seen that cycling is least in vogue in the mountainous and agricultural districts, in the former of which the population is sparse and the conditions not always very suitable for bicycle riding, and in the latter people are usually too poor to purchase bicycles at the price at which they are now offered. Nevertheless, these represent a new class of buyers for certain types of machines which might be very profitably catered for by the cycle maker, and there is no reason why such a demand should not be encouraged, so as to bring in a considerable amount of new business to the cycle trade. In mountainous districts it is probable that cycling is limited simply because buyers are not offered a suitable type of machine. Professional riding has had a great influence upon fixing the types of bicycles, because the average French cyclist thinks more of speed than of comfort and safety, and he is of opinion that what is good for the track is equally suitable for the road, with the result that nine cyclists out of every ten are only satisfied with high gears on very light bicycles. Makers turn out these machines because buyers want them, and they give very little attention to local needs, so that people in districts where gradients of 9 and 10 per cent are common do not go in much for cycling when they find that bicycles as now constructed require such a considerable muscular effort on the hills.

Some practical cyclists who live in the hilly departments have been telling makers

what to do in order to supply their wants. That they need a bicycle of strong and rigid build goes without saying, and it is also necessary that there should be two brakes, a plunger brake on the front wheel and a band brake on the rear hub. The coaster-brake would appear to be specially suitable for these districts, but one well known authority strongly condemns this device, principally upon the ground that in the mountains the weather is usually so cold that the rider is liable to endanger his health by getting hot by muscular exertion in pedalling up the gradients and then sitting absolutely still on his machine while he coasts down hill. He stigmatizes the coaster-brake bicycle as a "pleurisy machine." Of course, the opinion of a man who has thoroughly studied the special conditions obtaining in his district is entitled to respect, and it is quite possible that in cold and hilly districts the free wheel, which dispenses with continuous effort, may be unsuitable; but in the vast majority of cases—in undulating country, which constitutes about four-fifths of the French territory—the free wheel possesses advantages which are making it very popular among cyclists here.

The rider referred to has adopted a speed gear which is being fitted to the Peugeot machines. With this gear he can graduate his effort to the sort of gradient he is riding, and in descending he is not obliged to rely entirely upon the brakes, while if he should wish to avoid the unpleasant consequences of the cold air after a hard climb he can get sufficient exertion by back pedalling. This opinion seems to be pretty general among cyclists in the mountainous departments, as during an excursion in the Savoie last year those taking part in it were advised not to use free wheels. It is therefore quite unnecessary to offer such machines in the eastern and southeastern departments, and the maker will have a better chance of doing a good business in those districts by selling strong and rigid bicycles with two brakes and a change speed gear.

In the agricultural parts of the country, principally in the south, there are no topographical difficulties in the way of cycling, as the straight, level roads are always in admirable condition, and some of them are unequalled in any other part of the world. The only drawback is that the populations are not usually so well off as to open up a big field for high grade bicycles. Despite the good roads and climate, which are specially favorable for cycling, the number of bicycles in use is considerably less than in the northern departments; and yet there is no reason why the southern regions should not become a splendid market for the cycle maker if he would only take into account the resources of buyers and supply machines that they are able to purchase. A cheap bicycle would find an excellent outlet in these districts. People don't care a cent whether the machines are up to date or not, and sellers would probably find it a good experiment to

try to get rid of their old stock by disposing of the bicycles at a low figure, just sufficient to leave a profit. One of the difficulties urged against the more rapid expansion of business is that French makers will persist in building their bicycles with very high gears; it is just here that American firms have a big advantage in capturing some of the new trade.

The comparative advantages of tricycles with fixed motors and tricycles with throwing-out gear have been actively discussed since Bardin came out with a new De Dion machine on the latter system at the Gaillon hill climbing tests. Bardin had an ordinary $2\frac{3}{4}$ horse power motor, and, having the advantage of his new gear, was the only motorcyclist who elected to race up the hill from a standing start. According to the rules, all the competitors ought to have done this, but, riding very powerful motors, they refused to start under these conditions, and the fastest time was done by Béconnais on his 6 h. p. Soncin tricycle, he doing the kilometre up grade in 54 seconds. Bardin said that as he was the only one that ran according to the rules he ought to be regarded as the winner of the competition. The discussion has developed into a new phase this week by Béconnais challenging Bardin to a match on the Gaillon hill, the former using his 6 h. p. Soncin motor, while Bardin could have a more powerful motor than the one he used in the late tests if he liked, with, of course, the throwing-out gear. They would both start standing. The match would be run off in three heats, two on the hill, and if honors should then be even the final to be run off on the flat.

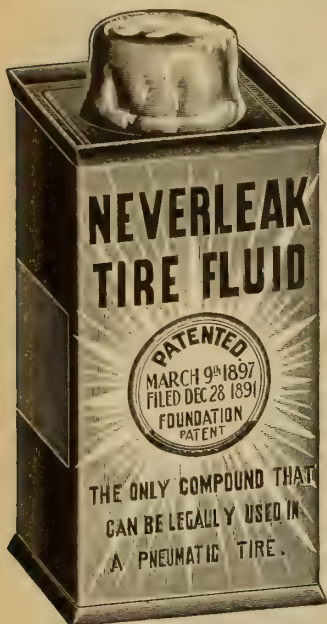
If the match takes place it will clear up a very interesting point, which is whether the higher power, and therefore faster, motor would not lose so much at the start up the hill as to prevent it overtaking the machine with the throw-out gear that would doubtless have got a good advance. Of course, the muscular power and skill of the rider count for so much that there is no telling what the result would be; but, seeing how hard it is to start a big motor on the level, it is certain that on an up grade considerable time would be lost, even if the rider succeeded in getting the motor to run. Béconnais is evidently afraid that he has not got all the best chances on the hill, as is proved by his stipulation that the third heat should be run off on the flat, when all the advantage would be on his side.

Difference Between Good and Bad.

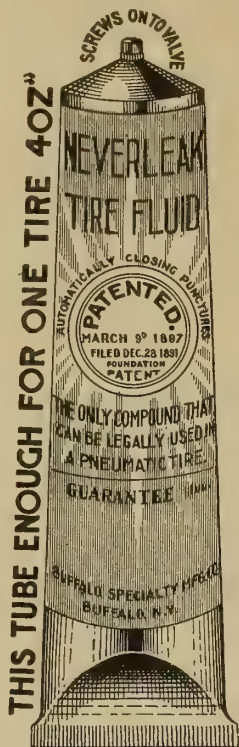
Tires, unless they are of the highest class of resiliency, consume efficiency in an amazing manner, says a contemporary. A dead tire is said to give a traction efficiency of as low as 42 per cent; a really good tire gives an efficiency of over 70 per cent. The range between slow and fast tires is greater than between the good and the mediocre classes of bearings or transmission gear. The present chain gives to within 98 per cent of its possible efficiency, and in the best of bearings the margin between them and perfection is small.

THE NEVERLEAK PEOPLE AND THEIR SPECIALTIES

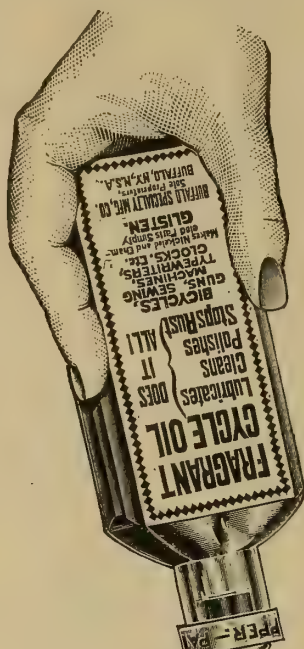
Here are a few of our Cycle Specialties, with NEVERLEAK in the lead. All jobbers carry them. Send them your orders.



8 ounce can. Treats 2 tires.

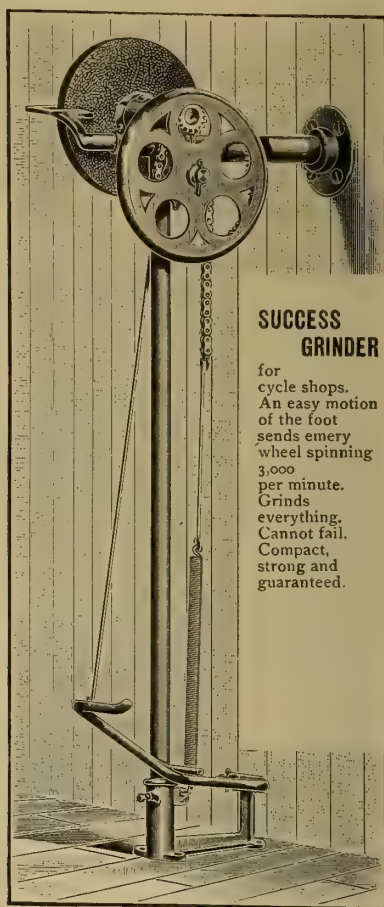


4 ounce tube. Treats one tire. Valve connection. Packed 1 dozen in our new counter display case. Fine, attractive display.



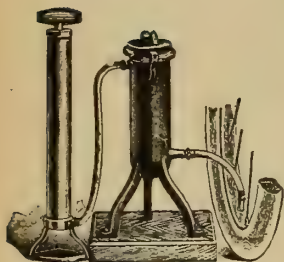
Every bottle of this oil is an

OIL CAN in itself and feeds the oil drop by drop. Cannot waste it. The greatest device out. Everybody wants one. Great seller. Packed 1 dozen bottles in a box.



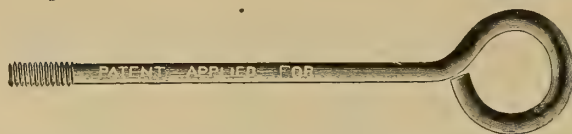
SUCCESS GRINDER

for cycle shops. An easy motion of the foot sends emery wheel spinning 3,000 per minute. Grinds everything. Cannot fail. Compact, strong and guaranteed.



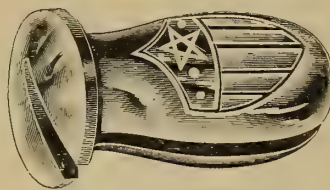
NEVERLEAK INJECTOR

for repairmen. Injects fluid quickly and correctly. You can't use it wrong.



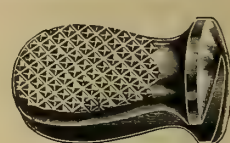
BUFFALO VALVE PULLER

for pulling out or inserting valves in tires. Simply screw it into valve. This enables you to handle the valve readily, and does not bruise the thread of valve as pliers do.



NEVERSLIP NIPPLE GRIP

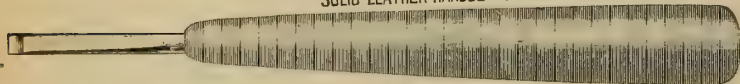
fits any nipple, no adjustment necessary, and affords the user a powerful grip. They are hardened, nickel plated and polished. Packed one dozen in counter display case.



BABY SPOKE GRIP

fits any nipple. Can be carried on the key ring or in the pocket. Nickeled and polished. Packed 2 dozen on a card.

SOLID LEATHER HANDLE 2/3 SIZE.



SOLID LEATHER HANDLED SCREW DRIVER

for bicycles. Best hand forged and tempered. Handsome tool. Will last a lifetime.

NEVERLEAK is made and sold under the Seth Curlin Patent No. 430,565, dated June 17, 1890, and the Duryea Patent No. 578,551, dated March 9, 1897. It is the only fluid that can be legally used in any pneumatic goods or any pneumatic tire. It is the only fluid that tire manufacturers use and endorse. It stops all thread leaks, all punctures and 90 per cent. of all tire troubles. It does not interfere with the workings of valves nor with vulcanization. It preserves the rubber. All jobbers handle Neverleak. Send them your orders, and remember that our Neverleak and other specialties will net you handsome margins of profits, and that we offer you only legitimate, legal goods that are established, well known, and that command respectable profits for you as well as the respect of your trade. Send for our catalogue of specialties, which also contains an interesting history of the Neverleak contest, and watch for other interesting developments.

METALINE

THE POLISH FOR ALL METALS

(especially prepared for bicycle use)

is a liquid preparation which will polish all metals, from the finest to the coarsest, by simply rubbing it on with a cloth and wiping off when dry, leaving a beautiful, clear, lasting lustre, without the least injury to the finest article.



1/2 PINT.

BUFFALO SPECIALTY MFG. CO., BUFFALO, N. Y.

FAVORING THE X-FRAME

Shallow Argument to Bolster That Un-sightily Departure From the Standard.

Change for change's sake appears to have struck the British trade in a tender spot. After holding out for years against changes of all kinds, makers there have now gone to the opposite extreme.

"We are convinced," says an English journal, speaking of the new cross frame, "that it is a move in the right direction, and that before the season is out there will be many new things in cross frames upon the market. The fact that most of the big firms are preparing in some sort of way for the demand that they know will come, is a sufficient indication that questions are being asked and inquiries made; and there can be little doubt that the firms and agents who are too old crusted and conservative to see the drift of things will feel the pinch before the present year has expired.

"Just for the sake of argument, we will temporarily allow that the cross frame is no better than the diamond pattern—it is going to be the fashion among a large contingent of cyclist when the season opens, and every maker and seller ought to know by this time what that means. If there should be any doubters among our readers as to the efficiency of the cross frame, we may tell them that after trials of many hundreds of miles on two of the best makes, we are quite sure that wheelfolk of all degrees will like the riding of the new patterns, and that they will be quite confident there is no set back either in speed or reliability.

"The ordinary diamond frame has had a long and successful innings, and will continue to be popular among a certain class for years to come; but there is always a strong section of buyers who go in for novelty, and who get tired of the universality of one pattern, especially if they can be convinced that the novelty is as fast, as reliable, and as durable."

Recent Incorporations.

Utica, N. Y.—Wadman Cycle Co., with \$25,000 capital. Directors, F. D. Crim, F. J. Wadman and H. W. Millar, all of Utica.

Syracuse, N. Y.—Bretz Cycle Mfg. Co., with \$100,000 capital. Directors, J. S. Bretz, G. M. Burns and Bella I. Bretz.

New York, N. Y.—The German Secret Process Steel Ball Co., with \$7,000,000 capital, to deal in steel, copper, brass, aluminum and other metals.

Washington crossing the Delaware is the subject matter of the Delaware Rubber Co.'s (Philadelphia) lithographic happer. A tire forms the frame of the picture, which is of generous size and contains a wealth of color.

The Retail Record.
CHANGES.

Fort Dodge, Ia.—J. & C. Alline, closed.

Los Angeles, Cal.—G. J. Packer discontinued business.

Paducah, Ky.—Williams Bicycle Co., J. A. Williams retires.

Los Angeles, Cal.—S. Larsen & Co. will discontinue bicycle department.

North Cambridge, Mass.—Hitchcock, Hooper & Co., Henderson's Block, succeed E. S. Hitchcock.

Plainfield, N. J.—F. L. C. Martin Cycle Co., East Fourth Street, removed to 310 and 312 Park Avenue.

Rome, N. Y.—Rome Bicycle Mfg. Co., 523-525 West Dominick street, will remove to 210 West Dominick street.

NEW STORES.

Rockland, Mass.—Frank Davis.

Maynard, Mass.—B. J. Coughlin.

Los Angeles, Cal.—L. Jacobson, 628 South Spring street.

Los Angeles, Cal.—Land Bros., 519 West Washington street.

EMBARRASMENTS.

Bristol, Conn.—George B. Parsons has filed petition in bankruptcy. Liabilities, \$789.93; assets, \$446.23.

Cause of Smith's Satisfaction.

H. O. Smith, the head of the G. & J. Tire Co., is one of the well satisfied men of the trade. He was among those inattendance at the Cycle Show, and one had need to talk tires but a short time to discover Smith's satisfaction.

His company enjoyed a remarkably good business during the past twelve months and Mr. Smith is thus able to forecast the future with no little assurance. The detachable tire, the G. & J., at any rate, has gained ground in every direction and the general satisfaction given was cause for pride and congratulation. Mr. Smith said complaints and replacements were so very rare during the year that he hardly dared mention them for fear of unbelief.

Mr. Smith also confirmed that the steel rim was regaining a considerable measure of lost favor. This was particularly true, he said, of the demand in the South and West.

What one Reporter saw.

Here's one of the wonderful things the reporter of a New York daily saw at the Cycle Show:

"One of the interesting things never shown before is a motor which runs a cycle at the rate of fifteen miles per hour, and also exerts on every part of it by many ingenious devices the strain which it would have to bear in carrying over a country road a man weighing 350 pounds."

"Motocycles and How to Manage Them." The only book of its kind in existence. Price, 75 cents. For Sale by The Goodman Co.

If You Are Interested In Automobiles

*The MOTOR
WORLD*
Devoted to the
Automobile
& Kindred
Interests

WILL SURELY INTEREST YOU.

It is published for the information
of the average mortal; no dic-
tionary of mechanical
terms is needed to
understand it.

**PUBLISHED EVERY THURSDAY
AT 123-125 TRIBUNE BUILDING,**

NEW YORK CITY.

**\$2.00 PER YEAR.
10 CENTS PER COPY.**

SAMPLE COPY ON APPLICATION.

CORRESPONDENCE

To the Editor of the Bicycling World:

In your issue of the 17th inst. you speak of the old custom, "more honored in its breach than in its observance," of showing the rider what he gets for his money. You imply that the dealer is alone at fault.

Now, it appears to us that the dealer feels the influence from his factory as much as the rider does from his dealer. It's an axiom that for the last four years the dealer has had price hammered at him from all quarters. It has been the only argument of his customers and the major argument from the factory.

The dealer's view is naturally circumscribed by his position. He is affected by the constant argument on price. There is none more effective, and he has naturally been brought to the use of it as the only basis on which to do business. He loses sight of the fact that price is comparative.

The factory, on the other hand, sees the trade situation in a broader way. It may elect to do its business on low prices or good quality. If the latter method appeals to it as having the best future it devolves upon it to educate the dealer in the education of his customers.

Why one article is worth more than another, similar in general appearance, has to

be demonstrated. The dealer will rise to the demonstration of it if given the material with which to work, if for no other reason than that trade so obtained is the most satisfactory.

Everybody knows that "what you get for your money is as important as the amount you pay," but everybody does not think of it when making a purchase.

We said some time ago that "the education of its marketing channels" is an important item in the conduct of the bicycle business to-day.

If that is true, do not blame the dealer for neglecting to show the "why" if he is not educated to it.

NATIONAL CYCLE MFG. CO.,

F. C. Finkenstaedt, Secretary.

Bay City, Mich.

To the Editor of the Bicycling World:

We notice that your editorial in your issue of the 24th on "How Success Is Won" refers to the fact that chainless bicycles, the cushion frame and the coaster-brake have been successful to a great extent through the pluck and perseverance of their sponsors in "keeping at it" for years.

Do you avoid mentioning the success of the "King of Saddles" and the cable springs (there's another C for you) for fear of being charged with needless repetition? We have it that comment from nearly every tongue at the show accorded Persons saddles the

premier position in the trade, and we were gratified. It had been a long time coming, and once in a while—but never mind that; we are gratified. "The mills of the gods"—

PERSONS MFG. CO.,

Worcester, Mass.

To the Editor of the Bicycling World:

Please allow me space in your columns to ask if the Georgia bicycle tax is constitutional.

Is it not class legislation to impose a special State tax on a bicycle dealer and not a dealer in buggies and wagons, on the bicycle repairer and not on the repairer of guns, sewing machines, etc.?

Will not some reader explain how it is that the State can impose a special tax on one industry and let others go free?

ALEX. S. PERRY,

Cuthbert, Ga.

To the Editor of the Bicycling World:

We notice in your "Echoes of the Show" you state "House lamps burning carbide were among the side features of the show that came in for no little attention; it was the first time that such lamps were displayed at a public exhibition." We displayed this line at our exhibit last year at the show very extensively, and we make more than any other concern in this market.

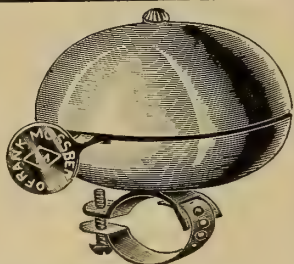
F. E. BUNDY LAMP & SUNDRY CO.,

Elmira, N. Y.

THE MOSSBERG HANDLE-BAR BELLS HAVE
THE ACKNOWLEDGED RIGHT OF WAY.

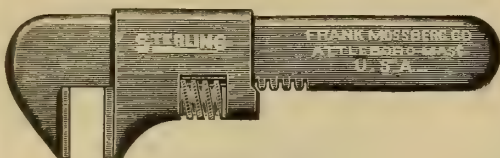
Mossberg Electric Chime

Its tone has no rival for clearness and penetrating qualities. The loudest bicycle bell made. Guaranteed to "clear the road." Especially suited to "scorchers" and tandem riders.



Mossberg Cuckoo Chime.

Its tone resembles the cuckoo call. The neatest, simplest, most durable double-stroke bell ever made.



The
New
Sterling
Wrench

The ideal bicyclists' and machinists' wrench. Made of the best material, case hardened, nickel plated and finished in the highest style of the art. The strongest and most practical light wrench ever offered to the trade.

All goods warranted as to quality and workmanship and all prices guaranteed for the season.

All leading dealers sell the Mossberg bells and wrenches.
Write for catalogue and prices.

Frank Mossberg Co., Attleboro, Mass.

Patee Crest Bicycles and Motor Cycles.

Having purchased the Morris Motor plant, of Rochester, N. Y., we will shortly be in a position to deliver our Motor Cycles in any quantity desired.

The Patee Motor is the same one that has been attracting so much attention on the Sager Motor Cycle. In fact, the motor used by Sager is the property of the Patee Bicycle Company, having been loaned by us for exhibition purposes during the New York show, where it was the greatest attraction of the show.

The Morris plant has been moved to Indianapolis and installed in our factory. Patee Motor Cycles will be fitted with our motor and will be fully guaranteed. Money refunded if not satisfactory.

If you want the best thing a bicycle dealer ever had in his store, apply for our agency without delay.

PATEE BICYCLE CO.,

INDIANAPOLIS, IND., U. S. A.

FANCIFUL FLANGES

On This Motor They are Hollow and Placed Vertically.

Few persons who examined the Hafelfinger motor bicycle at the recent show failed to notice—or to have the matter called to their attention—that the motor flanges were placed vertically instead of horizontally, as on other motors.

The merits and demerits of this method of flange-making were freely commented on. To be frank, it was the latter which occupied the greatest share of attention, the consensus of opinion being that the innovation was a mistake. The theory was that the air, instead of circulating around the motor cylinder, as with the horizontal flanges, would, after striking the front and part of the sides of the cylinder, remain there, thus cooling only a little more than a third of the circumference of the motor cylinder.

The inventor was not prejudiced in favor of the vertical flanges. As he stated to the *Bicycling World* representative, it was a matter on which he was open to conviction. If the horizontal flanges gave better results—and he was not prepared to say they would not—it would be the easiest thing in the world to adopt them.

But there was another feature about these flanges which was little noticed, but which was really put forth as a contribution to the art of constructing air cooled motors, and as such was worthy of serious consideration at least. This feature consisted in making the flanges hollow instead of solid. Each flange was cast with a space of about one-eighth of an inch between its two sides—as they may be termed—it being in other respects like the regulation type. Indeed, only a very close examination revealed the fact that there was an opening.

Opinions will, of course, differ as to the value of this type of flange. It would seem reasonable to suppose that it would cool more rapidly than a solid flange, owing to the fact that the air gains admission to the opening as well as plays on the outside of the flange.

On the other hand, however, the question that naturally arises is, Will a flange containing but little more than half the usual quantity of metal radiate as much heat from the hot motor cylinder as one that is solid? Isn't the ability of the flange to absorb heat proportioned, to a considerable extent at least, to the amount of metal it contains? The gain from the additional air space will be considerable; but will it more than counterbalance the loss arising from the reduction in metal?

The subject is an interesting one, and the value of any conclusions reached, based on actual experiment, must necessarily be very great. On nearly all motorcycles—and especially on bicycles—the water cooled motor is quite out of the question. Its cost, its

weight, its added complexity make this very plain. Consequently the problem is to improve the methods of air cooling.

The shape of the flanges has been in the past marked by a great deal of sameness, the fluted flanges of the Aster motor being about the only exception to the regulation type. Whether hollow flanges will make a place for themselves it is yet too early to determine.

Business is Scattered.

Assembling has, if reports are to be believed, assumed enormous proportions in France. A writer well in touch with the French cycle trade says that the demand for cycles has never been so big as it was during last season, but this heavy buying does not make trade boom, for the simple reason that it is now spread over an indefinite number of small makers, instead of being confined to big firms who at one time monopolized the business.

The big firms got their profits by catering for customers who could pay for high-grade machines, but since then the situation has changed somewhat, and the demand now runs not so much on the best machines as on bicycles of medium quality. These are turned out by the small maker, who is usually ready to do business on easy terms, and he is thus getting round him a growing circle of customers, while the big makers find the demand for high-grade machines less than what they can supply.

How Publicity Pays.

"If you don't believe in a policy of publicity," said the travelling man, "try to get the dealers in every town to stock up with a certain thing that has not been and is not being advertised.

"No matter what the 'premium' offered as an inducement, you will find the retailers in every case pretty stubborn about handling goods to which no publicity has been given by the manufacturer. Their business sense tells them not to buy what they have little chance of selling.

"If they are favorably impressed with the article they may place a sample order, but they are almost certain to say that they would let you enter one for stock if it were advertised. As it is, they are afraid to do so, not feeling sure that the merit of the article will be sufficient to cause sales to be made."

Dowse Wants Only Truthful Ads.

Representative Dowse, of the Massachusetts Legislature, evidently believes that truth, being mighty, should prevail in advertising as in everything else. Accordingly he has introduced a bill which imposes a penalty of \$100 on any persons or firms that seek to sell merchandise by misrepresentation thereof in their advertisements.

For an advance of about \$3 per pair over the usual list price a Chicago jobbing house guarantees its tires for the season, the guarantee including even the repair of punctures.

PERSONS

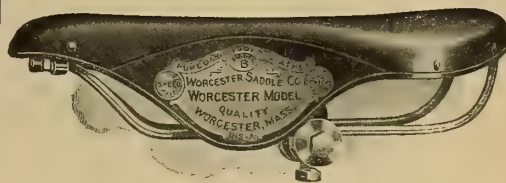


The King

of



SADDLES



PERSONS

PERSONS



20th CENTURY LAMP BOOTH
AT THE RECENT CYCLE SHOW.

Disappearance of the Tie.

Nowadays it is a rare occurrence for a maker to tie and solder his spokes at the crossing. Usually they are put in from alternate sides of the hub flanges, first one from the inside and then one from the outside, and thus they do not touch each other.

A few years ago the practice was very different. Then the tie and solder method was the favorite one, and general opinion upheld it. It was argued in this way: The untied wheel was more resilient, presented a better appearance, was easier to build; in theory it was decidedly the preferable system of spoking. In practice, however, it did not show up so well. The spokes would get loose, sometimes they broke, and the wheel was frequently out of true.

The change has been brought about by improvements in wheel building. Once it became plain that the untied spoke was desired by the public, wheel builders set about making it stand up. The assembling of the wheels was pursued with greater care, better spokes and rims provided, higher and more even tension given to the spokes in the final trueing-up. This brought about the desired improvement.

Excelsiors Cease to Climb.

Evidently the marketing of a \$40 bicycle by Bayliss, Thomas & Co. has not been a success, for that ancient English concern reports a loss of \$13,000 on the year's trading. For more than a quarter of a century Excelsior bicycles have been manufactured by them, and once had more or less popularity in this country.

Fell by the Wayside.

Two old English firms, both of them once well known to the American trade, have fallen upon evil times. One is W. Bown & Co., makers of the famous Æolus ball bearings and parts, and the other J. Harrison & Sons, makers of bells, lamps, etc. Both have been obliged to make assignments.

Handle Golf Goods, too.

In addition to forty-seven pages devoted to cycle sundries, the catalogue of the Post & Lester Co., Hartford, Conn., deals with a full line of golf goods as well; the catalogue is now being distributed.

TALKING

OF

TIRES,

If you would be



, it would be a

mighty good idea to get our figures, they are money-savers.

INTERNATIONAL A & V TIRE COMPANY,

346 BROADWAY, NEW YORK.

WHO SHOULD CONTROL?

Many Claimants for the Motor Vehicle Business—Cycle Dealers Claims.

It is pretty well universally conceded that there will ere long be a boom in motor matters, equalling or exceeding the great cycle boom, and it is also generally acknowledged in cycle trade circles that cycle manufacturers and cycle agents are, by nature of the near relation in character of work of the two businesses, the most fitting people to exploit the new industry, and in consequence the entire trade is acutely alive to the latest moves, says the Cycle Trader.

That the latter opinion, however, is not quite universal is evidenced by the agitation, through the medium of their respective trade papers, of carriage builders, coach and wagon makers, makers of small high speed steam engines, hardware merchants, ironmongers and others, all of whom would like a finger in the rich pie which is supposed to be on the point of being opened. For example, the current issue of the Hardware Trades' Journal, in dealing with the motor exhibits at the shows, states that a superficial inspection is enough to warrant the remark that this department of trade must be watched by ironmongers carefully, and, further, that a cycle dealer may handle cycles, but motors will doubtless fall into more powerful hands financially.

In the latter part of this remark there may be some truth, though it is difficult to see where the claim of the ironmonger as being the most suitable person to handle motors comes in, for his experience of the cycle trade cannot have been such as to leave pleasant memories behind, nor have those riders who became his customers had cause for universal joy over their transactions, and the causes operating to bring about this state of affairs in cycles cannot fail to be effective in an accentuated degree with regard to motors.

The fact is, the ironmonger is already in his own legitimate sphere burdened with a sufficiency of articles of commerce of a wide range and complex detail. The essential feature in the successful ironmonger, next to knowledge of the nature and value of the goods he handles, is his quality as a stock keeper. Many of his goods are also branded articles, and need but little skill on the part of the salesman, and certainly call for but small practical knowledge in description in order to effect a sale; and, above all, he is, as his name implies, a mere factor or trader in ironware.

Now, a motor vehicle is something more than ironware, and so was the bicycle. A man to successfully handle motors, even as a mere agent, must be many men rolled in one; he must, above all, be thoroughly practical in an engineering sense. must be a good salesman with wide range of argument, and must be intimately acquainted with the good

and bad points of the car he wishes to sell. And not only this, but he must have more than a superficial knowledge of the construction, leading differences in principle, and good and bad points of rival cars. Then, as has been amply demonstrated in the cycle trade, he must have facilities for maintaining the car in running order, and this calls for further knowledge which can be gained only by practical experience in driving, added to all round mechanical knowledge of no mean order, and at least a fair grasp of the principles of mechanical electricity.

This seems a fairly large order for the ironmonger to fill, and one not likely to be filled in view of the fact that the majority of ironmongers who were induced to enter the cycle trade have since abandoned it in disgust through their own incompetence to grasp its detail construction or keep pace with its rapid development. For the cycling press and the shows, together with the natural mechanical trait which seems to develop in the majority of cyclists, have placed the purchaser in the position of knowing far more than the average vender, to whom, however, he not unnaturally looks for elucidation and guidance in selecting his mount and filling his specification.

The strong claim of the cycle trade to the agency side of the business is the thorough practical knowledge of the many similar conditions of the two vehicles, and the facility in most cases for executing motor repairs with but small alteration or extension of plant or premises, though the cost of stocking vehicles will in many cases be precluded through lack of capital.

The large cycle makers, and particularly the component manufacturers, certainly possess the requisite plant for dealing with the construction of the motor proper, and on arrival at anything approaching standard patterns no doubt big developments will be seen, and particularly in the accessory branch. The smaller class of cycle maker has a more limited field, and the indication that tricycles and quadricycles are being replaced by vehicles of the small voiturette class is against him, but a jump into public favor on the part of the motor bicycle would open up great possibilities.

The whole subject is very complex and the range of field very wide, while the experimental state of the whole industry calls for the exercise of extreme caution, whether approached from a maker's or agent's point of view.

So it would be well for the present to be content with small beginnings, such as would secure recognition from the public, and so place the maker or agent early in the field. The scope or direction in which the motor trade will be embraced must necessarily be governed by capital at command and general surroundings.

To Acquire a Motorcycle Education.

"Motorcycles and How to Manage Them."
The name explains the nature of the book.
Price 75 cents. For sale by The Goodman Company. * * *

POLICY THAT PAYS

Sales of the Better Class of Goods Well Worth Making.

It is coming to be the exception rather than the rule for a dealer or salesman to excuse the sale of a cheap bicycle on the plea that it would have been a waste of time to talk a better grade machine.

The time was, and not very long ago, when such an excuse would have been accepted as perfectly valid. The surrender to the low price creed—so long delayed—had been complete, and nearly all efforts were devoted to the disposal of cheap machines.

But the example set by one or two firms, viz., to push the better class of goods in every way possible, has been followed by a steadily increasing number of competitors.

The policy is a sound one from every point of view. The dealer is able to calculate pretty closely what his sales will amount to in a season, and in the majority of cases he can have, by the exercise of a little diplomacy, almost the final word as to the grade of the machine sold.

He is no longer obliged to hurry feverishly from one prospective buyer to another, striving to hold them all and frequently glad to close for any machine.

Instead, his customer acts deliberately, goes carefully into the merits of the different machines, and decides only after balancing the pros and cons and convincing himself that his decision is a wise one.

Furthermore, in a very large number of cases, price does not form an insurmountable obstacle to the purchase of the better machines.

If the value is there, and the salesman is sagacious enough to make this fact clear, a considerable number of purchasers will waive the question of price and buy the machine on its merits.

Every time a higher class machine is sold, every time the salesman wins in his war against cheapness, the dealer betters his position and increases his chance of remaining in the field.

He does not have to increase his aggregate sales; that is a difficult, almost an impossible, task. But he does make each sale yield him a fair profit, and more than this he cannot reasonably expect.

Fisk Produces a Fine Effect.

One of the most modest and yet most effective hangers that has seen the light in some time is that now being distributed by the Fisk Rubber Co., of Chicopee Falls, Mass. The subject itself, a girl on a bicycle, is not new, but the color scheme, the brown, the red, the white and the black, produces an effect that is as striking as it is pleasing; it assures admiration and a prominent place for the Fisk hanger wherever it may be sent.

Spring or Rigid at Will.

Novelty, if nothing else, is possessed by a spring seat post brought out by an English concern. The spring device is attached to the horizontal part of the post, instead of to the part which goes into the frame, as is usual, the former being sufficiently uptilted to cause weight on the saddle to depress it.

It should be clearly understood, says the description, that no attempt to provide any large amount of "give" is made. The arrangement is merely one for taking the keen edge off the vibration, and enables a practically springless saddle to be used with comfort.

The saddle is clipped on the collar, which is of the standard $\frac{7}{8}$ -inch diameter, and slides on the forward member of the L pin, this motion being controlled by the spiral spring. The collar moves on ball grooves, so that there is no play or lack of freedom.

Owing to the movement of the saddle, which is almost in a line with the motion from the back wheel as it rises over an obstacle, the device is open to the objection that when the rider is working hard the backward pressure from the thighs would be inclined to compress the spring instead of working against an unyielding saddle. This

has been overcome by a bolt, which works in the interior of the top tube of the pin, and is put in or out of action by a little button at the back. This can be pulled backward by the rider as he goes along, and locks the spring out of action so that the whole arrangement becomes rigid, as usual.

It not only enables the highest efficiency to be maintained, but the rider can test for himself the comfort derived from the spring by locking and unlocking it as he rides over rough surfaces.

Claims of the Canfield.

"After two seasons of practical demonstration we are about to begin the third with a better brake, better facilities and the knowledge that the Canfield brake has taken first place in bicycle equipments of this character," modestly say the Canfield Brake Co. in their booklet, and then follow it up with the assertion that "more of these coasters have been sold during the last two seasons than all other detachable brakes combined. This brake, having a thickness of only about one-eighth of an inch, takes up but very little space on the hub, and requires no special fitting whatever."

The booklet itself is small, but attractive, and is marked by a streak of originality. "Foreword," for instance, does duty instead of the hackneyed "Introductory" or "Preface."

Eight Cars Already Engaged.

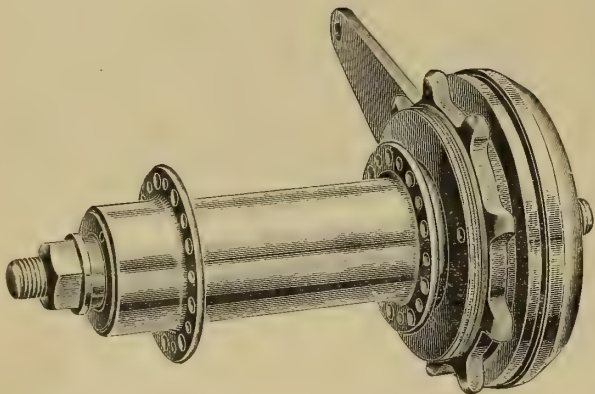
G. A. Wahlgren, manager of the "Transcontinental Automobile and Cycle Show," has been doing the Eastern trade for the last several weeks in the interests of the project. Eight cars have already been contracted for, he states, and when the train leaves Chicago for the easy jaunt to San Francisco Wahlgren thinks it will be composed of nearer fifteen than eight cars.

Crest Invades Foreign Fields.

The Crest Mfg. Co., of Cambridgeport, Mass., is "after" foreign trade, and after it in the right way. All of their printed matter is in the particular language of the country in which it is circulated, and, despite France's prominence in the matter of motors, there is no country in which Crest motors are being more vigorously pushed.

Saddle Springs Their Specialty.

The Standard Wire & Iron Works Co., of Toledo, O., is preparing to manufacture the Oleson bicycle saddle spring, which will be marketed by a new company now being organized by George H. Jay, Ole Oleson and F. E. Dennison.



THE "E. Z." COASTER BRAKE NO. 2.

Manufactured by

REED & CURTIS MACHINE SCREW CO.,
WORCESTER, MASS.

TO WHOM IT MAY CONCERN:

This is to certify that we have taken a license from the original inventor and patentee, Edward E. Ziegler, of Philadelphia, to manufacture the Coaster Brake shown herewith. We are the only ones authorized to make and sell this Coaster Brake in the United States, and all other parties making and offering such an article for sale are infringing our rights.

Yours truly,

REED & CURTIS MACHINE SCREW CO.

We would be pleased to have you catalogue this Brake, and can take care of you to your satisfaction.

WRITE FOR CATALOGUE "C."

YOU REGULATE THE FLAME WITH A GAS VALVE IN THE
COLUMBIA AUTOMATIC GAS LAMP.

For Bicycles, Buggies and Automobiles,
and the Water-feed takes care of itself.

**LIGHTS AT ONCE.**

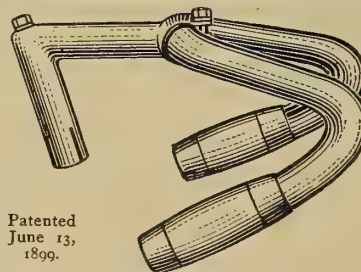
Burns $\frac{1}{3}$ the carbide. Gives twice the light.

WATER FEED, automatic, *i. e.*, requires no regulator. Water flows proportional to flame set.

GAS VALVE regulates size of flame, high or low—only lamp in which you can regulate the flame in the manner.

Gas generated at low pressure thus avoiding all danger common to high-pressure lamps.

HINE-WATT MFG. CO.,
14-16 North Canal St., Chicago, Ill.



**IDEAL
HANDLE BARS**

FOR THE COMING SEASON

will be made with forward extension $2\frac{1}{2}$ and $3\frac{1}{2}$ in. forward throw, and also with the Copeland patent stem, which gives it a 1 in. forward or backward throw. Stem made of one-piece forging, and bar made of best seamless tube. Our prices are so low this season you cannot afford to use inferior goods. Get sample and quotation.

We Guarantee our Bars to be the best finished Bars on the market.

Sole Manufacturers, **IDEAL PLATING CO.**—No. 3 APPLETON STREET BOSTON MASS.

EVILS OF OVERPRODUCTION

It Leads to Over-Competition and Then Comes Inevitable Disaster.

In no business have the twin evils of overproduction and overcompetition been more apparent than in the bicycle trade. Lack of responsibility, of foresight, of regard for the consequences of miscalculations, have been given as reasons for the prevalence of these evils, and with considerable truth.

But while the trade has been an unusually severe sufferer in these respects, it has not been alone. Other trades have been different only in degree. They overproduce and undersell, just as it has done, in spite of the knowledge that such a course is little short of suicidal.

Is it possible, asks the Carriage Monthly, touching on this subject, to devise any system to prevent or check overproduction with its consequent disadvantages? Our hundreds and thousands of factories are rushing production, each intent on the opportunities before it, soliciting orders and filling them, regardless of what all the other factories are doing. Must one firm do less and allow its actual or possible customers to go somewhere else, because production may possibly be going at too rapid a gait?

Associations of manufacturers seek to partially remedy this evil by diffusing enlightenment as to market conditions. Each firm seeks to get away from the effects of overproduction as much as possible, by reducing cost of manufacture below surrounding competitive rates, or by stamping on his products some feature of exceptional superiority or value. But all are trying to do the same thing, and all measurably succeed, leaving each, one and all, in the same relative position. Some manufacturers seek to gain an advantage by rushing skilled and irrepressible salesmen up and down the country to sell their products. So many are doing this that advantages are equalized and a fair division of trade results.

The last analysis of this subject drives us back to the real elements of superiority, viz.: character, ability, well-balanced mental force. Given equal energy and equal capital and equal plant, character, ability, well-balanced mental forces come out ahead.

But commercial statistics show, it is constantly reiterated, that there are ninety-five commercial failures in every one hundred businesses. Without questioning the exactness or inexactness of this statement, if ninety-five buggies out of every one hundred which Jones & Co. made broke down the fact would receive attention, and they would either be forced to make better buggies or get out of business.

There is something radically, though not ineradicably, wrong in a business system when so much failure occurs, decade after decade. Why should a man or a firm fail in buying things to sell and selling them? There

is no natural or necessary reason. Failures come because business is not done right. The basis of business is that it is cheaper and easier to buy something than to make it or go to where it is to get it. The buyer can do something else, and sell his product and buy with his labor what it is worth.

The trouble originates when we begin to exchange our work with money for what we want. Artificial conditions arise, all culminating in a degree of difference between what the producer gets for what he gives, which is in violation of the unwritten and invisible code of law stamped in the constitution of society. The farmer gets \$2 or \$4 for as much wheat as makes a barrel of flour, while the man who uses it pays \$5 to \$8, according to season, abundance or scarcity. This difference is not covered by fair charges for getting the farmer's wheat to mill and elevator, and carried to the cor-

MORGAN & WRIGHT TIRES

ARE GOOD TIRES

UNDERSTAND OUR
GUARANTEE? IF NOT,
ASK DEALERS. THEY
KNOW.

MORGAN & WRIGHT
CHICAGO

NEW YORK BRANCH: 214-216 WEST 47th ST.
BOSTON BRANCH: 80 BATTERY MARCH ST.
Near Fort Hill Square.

ner grocery, and other incidental charges growing out of modern necessities. The difference between this just cost and the price he pays is indirectly but unerringly the cause of that inherent disorder of our economical system which leads to so much commercial disaster.

The secret of all is that the purchasing fund is tampered with, minimized by the tollgate keepers of civilization, and producers do not get possession of enough money to buy back what they make; consequently there is a periodic surplus, and hence destructive competition to realize on production, with resulting losses and hence failures, until reinvigorating influences bring about a temporary equilibrium of trade. The gigantic machinery of modern civilization is a most expensive thing, but a necessary part of our civilization. Every bushel of wheat, every buggy, every implement, every nail, nut and bolt made is forced by a law in the constitution of society to pay its pro rata share of the expense of that machinery.

Our telegraphs and telephones, our commercial agencies by the score, our seventeen storied offices, our network of agencies from top to bottom, which act and react with feverish speed and intensity all along the line of human greed and endeavor—all, all have to be supported by that invisible extracting power, which lays its hand on everything that the hand of the toiler makes. It is well for the toiler that all these endless agencies exist, but it is out of this artificial condition of things that there spring those causes which create industrial disorder and destructive competition, and shutting down of factories, and seven months' business a year instead of twelve.

Ready for the Next Step.

"Well, we've got around to motor bicycles at last, haven't we?" was the greeting of a gentleman not connected with the trade to the *Bicycling World* man at the show last week.

"Yes, I take nearly as much interest in riding as I ever did," he went on, "and make almost as much use of my wheel. I am riding a chainless machine now, fitted with a coaster-brake, and am very much pleased with them. I rode through the White Mountain district last summer, and learned there to fully appreciate the coaster-brake. Roads which would have been quite unridable without it were taken with comfort and safety.

"The next step is the motor bicycle, of course, and I have been examining those at the show with a great deal of interest. I don't know a thing about their mechanism, but I suppose I shall go through all that during the next two or three years, just as I did with the bicycle. I shall certainly get a motor bicycle by summer, for use during my vacation, and until then I shall watch them pretty closely to see how they behave.

"Now, here is one that looks well"—pointing to the machine he had been examining—"and I suppose it will run all right. However, even at the worst, it can't be in a much cruder state than were the first bicycles I rode, beginning with the old solid tire safety of ten years or so ago. We stood them, and enjoyed helping along the work of perfecting them, and I don't think it will be any less pleasing to watch and take part in the evolution of the motor bicycle."

Triptolemus the First Cyclist!

Dr. Johann Menrad, a learned German, has discovered the first cyclist in the person of Triptolemus, the fabulous pioneer of agriculture among the Greeks. The Roman writer Hyginus, who was librarian to Augustus Caesar, in his books on astronomy, describes Triptolemus as inspired by the goddess Ceres with the idea of extending the growth of corn all over Greece. In order to enable him to travel rapidly from place to place, the goddess provided him with a single wheel, across which he used to stride. The unicycle was found to be no less swift and far more safe than the flying machine of the unlucky Dædalus.



THE DUCK ROLLER BRAKE

Does not injure the tire.
The most practical brake for motor cycles.
It will fit any bicycle. **Price \$2.50.**

THE DUCK LUGGAGE CARRIER

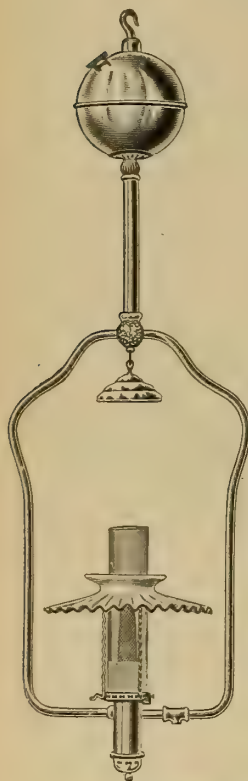
The want of every rider.
Write for Catalog. **Price 25 cts.**

DUCK BRAKE CO. 335 Broadway, New York, N. Y.



This Should Interest You

Because the prices are SO LOW, and the lamp SO GOOD,
that it is GOOD VALUE.



THE IMPERIAL GAS LAMP

is admittedly the best made and most ornamental fixture on the market, and the light is brilliant and satisfactory—It burns common stove gasoline, giving 100 candle power light and there is no odor, no smoke and no clogging—Thousand in use and giving satisfaction—Every lamp guaranteed and shipped complete—Terms are cash with order and lamps are shipped F. O. B. Chicago.

Prices include boxing, and are for lamps boxed singly—When ordered in quantities of more than one the price will be 19 cents less per lamp, this 19 cents being exact cost of packing and boxing.

Lamps No. 113	Wall Lamp	Price \$2.39	each,
" " 101	Harp	" 3.19	"
" " 121	Two light chandelier	5.39	"
Students Lamp		Price \$4.89	"

Write for catalogue and send sample order.

THE IMPERIAL GAS LAMP CO.,
132 and 134 East Lake Street CHICAGO, ILL.

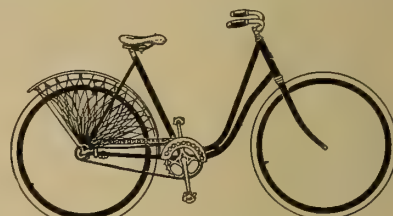
EXPLORER BICYCLES.

BUILT ON HONOR.

This is our sixth year in business, and we have prospered. We are making what we consider an elegant line of high grade wheels, and we pursue a live-and-let-live policy, working hand in hand with our patrons.

\$30.00.

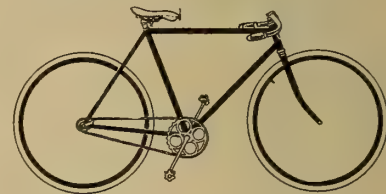
Our Light Roadsters, listing at \$30.00, in Men's and Ladies' Patterns, are well and honestly made. We use nothing but the best material throughout. Shelby Seamless Tubing, one-piece Hanger, drop forged Crown, Adjustable Bars, Kokomo Tires, Sager Saddles, and we enamel in either Crimson or Black.



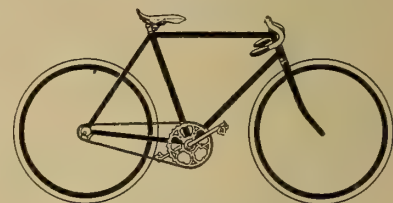
EXPLORER (LADIES) No. 30.

\$40.00.

Our Explorer Special at \$40.00 is a perfect beauty, so many of our agents tell us. Enameled in Orange, with an Olive Head. Extension Adjustable Bars, Troxel Saddle, one-piece Hanger, and choice of M. & W., Hartford or Goodrich Tires. This wheel is equipped with a Morrow Coaster Brake.



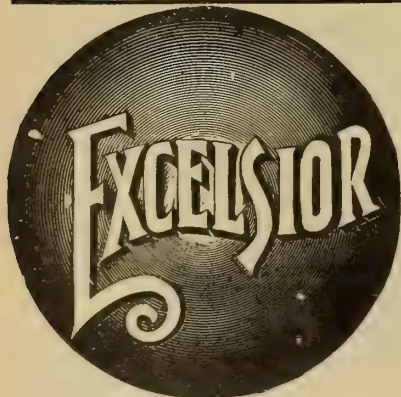
EXPLORER No. 30.



EXPLORER SPECIAL.

Any energetic dealer can make his living on this line alone. We have room for a few more good retail customers. Our discounts are such as afford the agent a good, clean, handsome profit. Drop us a line.

EMPIRE STATE CYCLE CO.,
ADDISON, N. Y.



STEEL BALLS

The Best in
the World.

EXCELSIOR MACHINE CO., BUFFALO, N. Y.

The Central Distributing Co., Sole Selling Agts, 302 Mooney-Brisbane Bldg., Buffalo, N. Y.

WILLIS PRICES

ON "UWANTA" 99 TIRES MAKE BUSINESS

HIGH IN QUALITY, LOW IN PRICE.
JOB TIRES AT LOWEST PRICE.

**All Kinds of Bicycle Sundries, Carbide, Juvenile
and Ferris Bicycles.**

SEND FOR TRADE PRICE LIST.

WILLIS' PARK ROW BICYCLE CO.

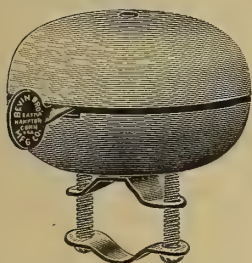
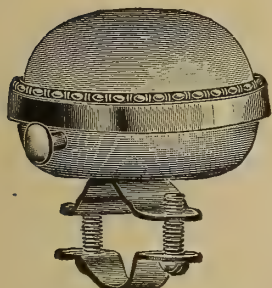
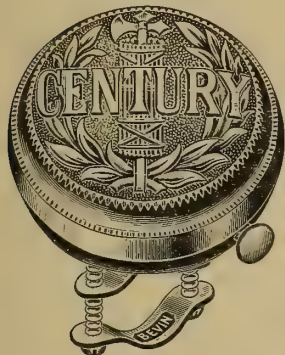
23 PARK ROW, NEW YORK.

OUR SHOW-

ing of bells, lamp brackets, toe clips,
trouser guards and the like

IS SO ATTRACTIVE

in price, quality, appearance and variety that there are few in the trade whom we have not pleased or who we cannot please if given the opportunity.



Have YOU obtained catalog and quotations?

BEVIN BROS. MFG. CO., EAST HAMPTON, CONN.

(Business founded 1832.)

Don't Like Eccentrics.

Another case of simplicity winning over a more mechanical device is to be found in the matter of chain adjustments. It has been the same fate that visited disk adjusting hub bearings—the older, simpler and better understood method had obtained a hold which could not be shaken.

In the case of chain adjustments the victory was more easily won. Every rider is at some time or other called on to understand the working of the draw bolt and nut which played the part of his chain adjustment. If he never adjusted his chain—which was rarely the case—he at least had to take his rear wheel out of the frame at some time; and to do so he had to understand the working of the chain adjustment.

Its operation was something that no one could fail to understand. To screw the bolt in one direction slid the wheel further forward in the frame, thereby loosening the chain; while the reverse effect was secured by screwing the bolt the other way. To be sure, the rider had to tell by his eye whether the wheel was straight in the frame when he got through, and as a rule it was left out of the centre. But a little practice enabled any one to get it near enough right to do, and that was all he bothered himself about.

With the eccentric or other newer methods of adjusting the chain, however, he found himself at sea. The former was unquestionably more mechanical, and would have been easier to manipulate—after one became accustomed to it. But there was the rub. Riders were not in the mood for learning new tricks, and the very appearance of the eccentric adjustment frightened them. They exaggerated the difficulty of learning it, and assumed a stand-offish air that did not help to popularize it.

Nor was the trade in a mood to make the change from one type of chain adjuster to another. The old method was satisfactory to riders, there was no demand for a change; so why should they spend money in making one and time in persuading their customers to accept it?

They could see no reason, and the result is that the draw bar and nut adjustment remains the standard.

With Unpleasant Results.

When some people evince a timidity about using even gasoline explosion motors there is little probability of those exploding gunpowder coming into general use. The statement of the inventor that a pound of gunpowder will run such a motor thirty miles is not likely to further the cause, for few riders would care to sit over even one pound of gunpowder; it might explode upward instead of downward into the cylinder.

Substitute for Nickel.

"Hecum," a non-corrosive metal invented some years ago, has been found to be a remarkable substitute for nickel, and tests prove that exhaust valves made from it answer better than those made of nickel. Their price is considerably lower, which should make them very popular.

KEATING

World's Lightest

World's Strongest

World's Speediest

BICYCLES

THE FAVORITE MODEL 90

With or Without the Curve.

Equipped with

The Keating Noiseless Double
Roller Chain.

THE MOTOR BICYCLE THAT
IS A MOTOR BICYCLE.

WEIGHT, 75 lbs.

We want good agents. Write for
prices on above and our
cheaper grades.

Keating Wheel and Automobile Co.,

MIDDLETOWN, CONN.

YOU
DON'T

need to
TALK

in order to
SELL

CUSHION FRAME

BICYCLES.

Simply put a
PROSPECTIVE CUSTOMER
on a

TRIAL WHEEL

with instructions to

RIDE IT 30 MINUTES,

and the

CUSHION FRAME

WILL DO THE REST.

Get your **CUSHION FRAME**
ORDERS in **EARLY**
to your manufacturer.

HYGIENIC WHEEL CO.,

220 Broadway, New York.

Owners of the Cushion Frame Patents.



SARTUS
BALL RETAINER
(The Original)
BEST ANTI-FRICTION.

618 BROADWAY, NEW YORK.

SOLAR LAMPS

The Kind That Satisfy.

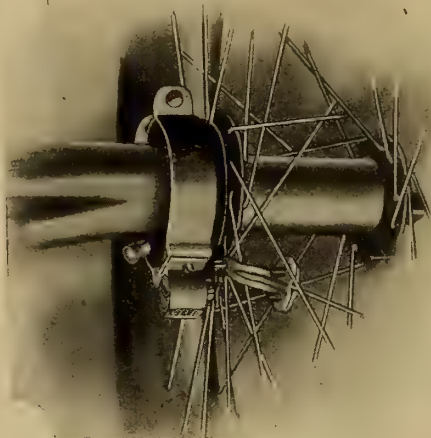
MADE BY

THE BADGER BRASS MFG. CO., Kenosha, Wisconsin.

Side Lines That Should Sell.

If the bicycle dealer will but see it there are many things within his grasp, if just outside the pale of the cycle trade, that can be turned to good advantage.

Some of the wiser ones, realizing that the automobile trade is not as ripe as it will be, are devoting themselves not to the vehicles, but to automobile supplies—the pump, the bell and all the other small what-nots, in which the Veeder automobile odometer, here shown, cuts no small figure. It forms a part of the regular equipment of the Locomobile,



the Overman, the De Dion-Bouton and several other well known automobiles, but the Veeder people make fixtures for all styles and makes and thus give the cycle dealer a free hand in "talking up sales."

The Veeder odometer for horse drawn vehicles affords room for even more sales; comparatively few of those who drive horses have ever had such a thing suggested to them, and the dealer who first advertises or suggests the keeping a record of their mileage and having always at hand an instrument for measuring distance should not fail of results; the farmer, the doctor and all others who own vehicles are likely to be interested.

Last Week's Exports.

Exports of bicycles and cycle material from the Port of New York for the week ending January 22, 1901:

Antwerp—26 cases bicycle material, \$675.
Amsterdam—1 case bicycles, \$20.
Bremen—1 case bicycles, \$25; 15 cases bicycle material, \$395.
Brazil—30 cases bicycles and material, \$656.
British Australia—69 cases bicycles, \$5,087.
Brussels—3 cases bicycles, \$137.
British Honduras—1 case bicycles, \$19.
British West Indies—44 cases bicycle material, \$1,725.
Bale—3 cases bicycles, \$75.
Copenhagen—15 cases bicycles, \$668; 45 cases bicycle material, \$2,176.
Chili—1 case bicycles, \$30; 1 case bicycle material, \$50.
Central America—1 case bicycles, \$77.
Cuba—10 cases bicycle material, \$405.
Dutch Guiana—10 cases bicycle material, \$474.
Florence—1 case bicycle material, \$17.

Glasgow—2 cases bicycles, \$70.
Gothenburg—1 case bicycles, \$25.
Hamburg—96 cases bicycles, \$2,638; 96 cases bicycle material, \$2,638.
Havre—31 cases bicycles, \$789; 52 cases bicycle material, \$3,328.
Hull—2 cases bicycle material, \$31.
Liverpool—6 cases bicycles, \$160; 12 cases bicycle material, \$355.
London—5 cases bicycles, \$1,035; 28 cases bicycle material, \$1,188.
Milan—1 case bicycle material, \$18.
Mexico—2 cases bicycles and parts, \$46.
New Zealand—1 case bicycles, \$35.
Piræus—14 cases bicycles, \$350.
Rotterdam—23 cases bicycle material, \$695.
Southampton—1 case bicycles, \$60; 1 case bicycle material, \$15.
St. Petersburg—60 cases bicycles and material, \$1,464.
United States of Colombia—1 case bicycle material, \$27.

The Week's Patents.

666,358. Bicycle Support. Alfred Samuelson, Paxton, Ill. Filed Oct. 1, 1900. Serial No. 31,713. (No model.)

666,386. Pedal Bell. James W. Kuykendall and Charles N. Kimball, Denver, Col. Filed July 21, 1899. Serial No. 724,615. (No model.)

666,440. Motor Vehicle (Bicycle). Gustaf L. Reenstierna, Winchester, Mass., assignor to the Winchester Mfg. Co., Dover, N. H. Filed May 31, 1900. Serial No. 18,490. (No model.)

666,445. Adjustable Crank Hanger for Bicycles. Carl von der Heyde, Milwaukee, Wis. Filed Apr. 2, 1900. Serial No. 11,072. (No model.)

666,550. Bicycle Support. Samuel B. Parsons, Worcester, Mass. Filed Sept. 21, 1900. Serial No. 30,665. (No model.)

Herr Nowack's Revolutionizer.

It is greatly to be feared that August Nowack, a saloonkeeper of Jeffersonville, Ky., who has applied for a patent on an improvement on a bicycle gear which he expects will revolutionize things and increase the speed more than double, is due for a severe shattering of his ideals.

His plan is to use two sprocket wheels instead of one, both being on the same side of the machine, and two separate chains. The additional wheel is to be placed midway between the first sprocket and the rear hub. A full-sized model is now being made in a Louisville (Ky.) shop, and will be given a test in a short time.

It would probably puzzle even Herr Nowack to explain the working of this arrangement.

London's Army of Assemblers.

As a proof of the assertion that the growth of the small maker and assembler is due to the unwillingness of the British cycle trader to cater for the individual requirements of customers, Wheeling says that there are now 2,800 small makers in London, as against 760 a few years ago.

ELFIN
BICYCLESThe
Elfin
Against
The Field.

There never was a time when the superiority of the Elfin was so clearly demonstrated as at the New York Cycle Show, when the Elfin won out against the whole field.

It was a bad day for the product of those makers who build a cheap and flimsy Juvenile as a side issue to their adult wheels.

The Elfin is not a side issue with us. We make no adult wheels. We make Juvenile Wheels only—and the only Juvenile worth having.

No Other
Juvenile

has the Reversible Crank Bracket or such an easy chain adjustment—things of great importance in a child's wheel—nor has any other Juvenile the lightness, trimness, or speed of the Elfin.

See that you have the Standard Juvenile Bicycle of the World.

Get the new Catalog.

Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.

What Salamon Did.

Almost unnoticed was the death of W. N. Salamon, who in the early days of the British cycle industry was one of its central figures. As president of the Coventry Machinists' Co. he did more than any other one man to plant the industry firmly in Coventry, and under his regime this concern occupied a position in the very front rank.

He was one of the few men who were bold enough to risk capital in a trade which manufactured articles that were looked upon by the vast majority of people as toys which would have a shorter vogue than roller skates, says a contemporary. Around him were gathered some of the most talented machinists and designers in the trade, who have since made great reputations for themselves as individual manufacturers, and several of whom have become the heads of great cycle businesses.

Foremost among these was the father of the modern bicycle, the late James Starley. Quite apart from the many improvements with which Mr. Salamon was concerned or in touch, between 1867—when the first crude French-made bicycle was brought to Coventry—to 1878—when it had been improved out of all knowledge, and had become the graceful high bicycle of the time, which was a pleasure to ride—Mr. Salamon was mainly responsible for that great innovation in cycle construction, consisting of the substitution of brazing for welding, which at once greatly reduced weight.

In the days when Mr. Salamon was head of the Coventry Machinists' Co. it unquestionably led the whole world in cycle design and revolutionized the manufacture of bicycles, and to his boldness and foresight Coventry and the wheel riding community at large owe a debt of gratitude.

For a number of years the Coventry Machinists' Co. was a factor in the American trade, its Swift machines—both high wheels and safeties—having been imported in considerable numbers.

Exemption From Taxation Extended.

At the request of the Steamobile Company of America, the Keene (N. H.) Board of Aldermen last week voted to extend to it the exemption from taxation granted to Frank T. Fowler and others on the buildings, machinery and capital used by them in the manufacture of bicycles for ten years from July 1, 1897.

It was said that the Steamobile Company had been organized with a capital of \$250,000 to manufacture automobiles, bicycles and tricycles, and had arranged to purchase and carry on the Fowler or Trinity plant. It was the opinion that the exemption granted by the councils in 1896 would apply to the Steamobile Co., as successor to the Trinity Cycle Mfg. Co., but the New York parties in the new enterprise wished this point placed beyond question, and made that a condition of their purchase and operation of the Trinity plant. This was practically the last detail to be arranged, and the new company would begin work in a week or so if the proposed resolution was passed. Both boards concurred at once in its passage.

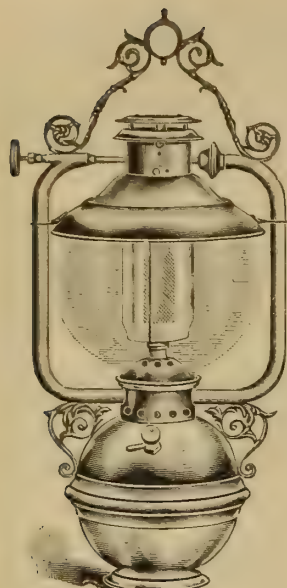
Of the several \$25 bicycles in evidence [at the cycle show] none could hold a candle to the Hendee Mfg. Co.'s Indian. Better value for the money has not been offered for many a day. The wheel is not only well made, of unquestionable material, but is well equipped and superbly finished, and a year's guarantee "does the rest." The Indian puts not a few of the higher priced machines to blush.—The Bicycling World, Jan. 24.



That
ought to be
enough to
cause every
wide-awake
agent to
write us.



\$25. \$30. \$35.



Outdoor.

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750 CANDLE POWER

ARC ILLUMINATORS

Produce the finest artificial light in the world.
SUPERIOR TO ELECTRICITY OR GAS
CHEAPER THAN KEROSENE OIL

A 20th Century Revolution in the Art of Lighting.

They darkness into daylight turn,
And air instead of money burn.

No Smoke. No Odor. No Noise. Absolutely Safe.

They are portable. Hang them anywhere.

WE ALSO MANUFACTURE

TABLE LAMPS, PENDANTS, WALL LAMPS,
CHANDELIERS, STREET LAMPS, ETC.

The BEST and only successful

Incandescent Vapor Gas Lamps

made. They sell at sight. Nothing like them.

A SNAP FOR BICYCLE DEALERS.

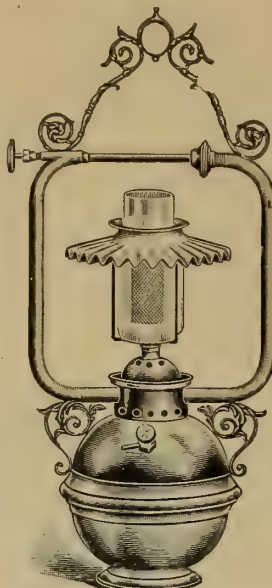
Agents wanted everywhere.

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HERE IT IS!

The Melvin
Automatic
Coaster
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Thoroughly reliable, having been
tested for two seasons.

Write for
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GASOLENE MOTORS

FOR

Bicycles, Vehicles and Launches

AIR COOLED AND WATER JACKETED

ACCESSORIES AND PARTS

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Complete Sets of Castings and Working Drawings

LOWELL MODEL CO.

Box 292 LOWELL, MASS.

All American wheelmen who desire to keep themselves
posted upon matters concerning the cycle in Europe, its trade,
mechanics, and sport, should subscribe to

THE CYCLIST

AND BICYCLING AND TRICYCLING TRADES REVIEW.

The only recognized authority of English trade and manufac-
ture. Sent post free to any part of America for one year, \$3.25.
American manufacturers having novelties in machines or sun-
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THE CYCLIST.

Terms on application to

ILIFFE SONS & STURMEY, Ltd.,
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Members of the American Trade visiting England are invited to
call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street,
Ludgate Circus, London, E. C.

HIGH GRADE

wheels must have the
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There is nothing that gives more value for
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MORSE TWIN ROLLER CHAIN



NOISELESS IN MUD, WATER OR
DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless
Rocker Joints. Insist on having the
Morse Twin Roller. Fits regular
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Send for Catalogue and
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Morse Chain Co., Trumansburg, N. Y.

WE SELL ALL THE PARTS TO MANUFACTURE AUTOMOBILES.

CREST MANUFACTURING CO.
CAMBRIDGEPORT, MASS.



CREST GASOLINE MOTORS
FOR
TRICYCLES AND
AUTOMOBILES.

THREE, FOUR AND FIVE HORSE-POWER MOTORS.
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Guaranteed. Price \$2.00.

Sheet Steel Bicycle Parts.

All Kinds of Metal
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THE CROSBY COMPANY, Buffalo, N. Y.

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The Monon Route and C. H. & D. R'y run
four trains daily from Chicago to Cincin-
nati. The day trains leave Dearborn Station,
Chicago, at 8:30 A. M. and 11:45 A. M., and
are equipped with elegant Parlor and Din-
ing cars. The Night trains leave at 8:30
P. M. and 2:45 A. M. These trains are
equipped with elegant sleepers and compart-
ment cars, the sleepers on the latter train
being ready for occupancy at 9:30 P. M. City
Ticket Office, 232 S. Clark St., Chicago. ***

Low Rates to the South.

Excursion tickets at reduced rates are now
being sold by the Chicago, Milwaukee & St.
Paul Railway to the prominent resorts in the
South, including Jacksonville, Fla., Mobile,
Ala., New Orleans, La., Savannah, Ga., El
Paso, Tex., which are good for return pas-
sage at any time prior to June 1st, 1901. In-
formation regarding rates, routes, time, etc.,
can be obtained on application to any cou-
pon ticket agent of the Chicago, Milwaukee
& St. Paul Railway. ***

L. R. HALL

Enameling and Nickeling Co.

ENAMELING, NICKEL-PLATING

and VULCANIZING for the trade.

Carriage Tires
Our Specialty.

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HAND AND FOOT PUMPS,

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Brass Wire and Rods.

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MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn.
Depots: 210 Lake St., Chicago.
423 Broome St., New York.

The "FLEMING" Motor LEADS.



Use it
on your
Motor-cycle.

Fleming Mfg. Co.,

93-95 Elizabeth St., New York, U. S. A.

Only One of its Kind.

Even this year's show was not to pass into history without its "freak." During the first few days the collapsible or detachable bicycle and the cushion frame from Canada were the nearest approaches to this distinction to be found, and it was for a time thought that their uniqueness would not be challenged.

On Wednesday, however, a genuine "freak" appeared. It came "right from the fire," as its inventor expressed it, and in consequence of this hurried entrance was lacking in finish.

It differed from other bicycles in having an auxiliary attachment for the hands, which assisted the feet in propelling the machine. The handle bars are connected with the outside pedal ends, and pressure brought on first one and then the other side of the handle bars transmits the power thus obtained to the pedals. The handle bars here referred to have nothing to do with the steering of the machine, this being effected by a pair of supplementary bars, having attached to them two small steel rods, made to form a circle at the ends, the rider's thumbs being inserted therein.

The machine is noteworthy chiefly as being the only example of a foot and hand propelled bicycle in this country. It is scarcely likely, however, to shed much light on the question of the merits of this type of machine.

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Bing-

hamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

Where Bankrupts Abound.

Since August, 1898, when the National Bankruptcy law went into effect, 5,000 petitions have been filed in Chicago alone for relief under it. The boast is made that Chicago holds the lead over every city in the country, not even New York being excepted.

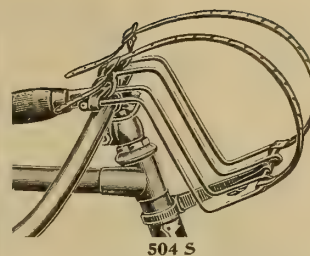
If we spent

\$1,000,000

in advertising some people would still use cheap and leaky oilers. Spend a few cents more and get a **"PERFECT"** Pocket Oiler. You will be well repaid.



25c.



**LAMSON'S
LUGGAGE
CARRIERS**

for Bicycles.

Made in several sizes and patterns. These staple carriers are known and sold the world over. All dealers should have them.

The Best All 'Round Carrier Ever Made.

Send for circulars and prices to the manufacturer,

C. H. LAMSON, PORTLAND, ME., U. S. A.

**MORROW
COASTER AND BRAKE.**

**Over 100,000 Sold
Last Year.**

**Everyone Giving Satisfactory
Service.**

**Make Your Cycle Saleable and
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the MORROW.**

ECLIPSE MFG. CO., ELMIRA, N. Y.

**NEW YORK BRANCH:
105-107 Chambers Street.**

If
You are Interested
in Automobiles,

THE MOTOR WORLD

Will Interest You.

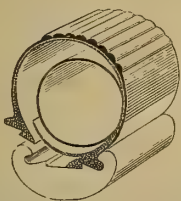
IT'S NOT LIKE THE OTHER KIND.

It's readable,
and you can understand what you read.

Published Every Thursday
at 123-5 Tribune Building, New York.

\$2 per Year.

Specimen Copies Gratis.



**A TIRE
THAT HELPS
TO SELL THE WHEEL**

BECAUSE:

It is **DETACHABLE**, and therefore easy to repair.

It is handsome in appearance.

It is of the highest grade.

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Conscientiously-Made Chains.

That term describes the

DUCKWORTHS.



THEIR PRICE AND THEIR QUALITY MUST APPEAL TO ALL.

GET CATALOG.

Duckworth Chain & Mfg. Co., Springfield, Mass.

Selling Agents, Brandenburg Bros. & Wallace, New York and Chicago.

NEVERLEAK

STOPS LARGE PUNCTURES.

This is the only fluid that can be legally used in pneumatic tires. Suits now pending.

BUFFALO SPECIALTY MFG. CO.,
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Frequent fast express trains at convenient hours.

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TICKET OFFICES:

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**THE
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Specimen copy and advertising rates on
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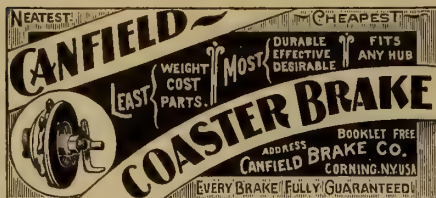
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49 Middle Abbey St., DUBLIN.

The Thorndike

Boylston St. and Park Square,

On the border of the most famous
Public Garden in America. BOSTON.

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Through Train and Car Service in
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TWO FAST TRAINS

	"Chicago" Special Via Lake Shore.	"North Shore" Special Via Mich. Cen.
Lv. Boston	10.45 A.M.	2.00 P.M.
Due Albany	4.10 P.M.	7.35 "
" Syracuse	7.55 "	11.40 "
" Rochester	9.40 "	1.30 "
" Buffalo	11.40 "	
" Toledo	5.55 A.M.	
" Detroit		8.15 "
" Chicago	11.50 "	4.00 P.M.

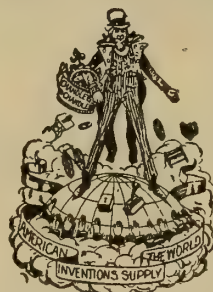
The Finest Pullman Cars will be run on these trains.
Tickets and accommodations in sleeping cars for sale at City
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GOOD WORK GUARANTEED.

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EXPERT REPAIR WORK
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Our fee returned if we fail. Particulars and our book "How to Secure a Patent" sent free. Patents secured through us are advertised for sale at our expense. Send sketch and description of your invention and we will tell you free whether or not it is patentable.

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Many have made fortunes from simple inventions.

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"THE ORIGINAL AND ONLY."

Patented October 10, 1899.

SANGER HANDLE BAR AND PLATING CO.,
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Via Rockford, Freeport, Dubuque, Independence,
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**DOUBLE DAILY SERVICE
TO OMAHA**

Buffet-library-smoking cars, sleeping cars,
free reclining chair cars, dining cars.
Tickets of agents of I. C. R. R. and connecting
lines.
A. H. HANSON, G. P. A., Chicago.

BOSTON & MAINE R. R.

**LOWEST RATES
FAST TRAIN SERVICE**

BETWEEN

Boston and Chicago,

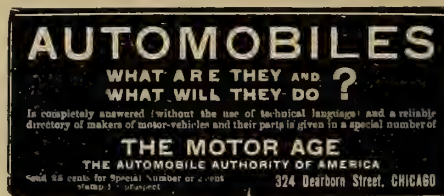
St. Louis, St. Paul,
Minneapolis

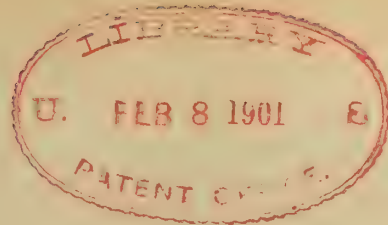
and all points West, Northwest, Southwest.

Pullman Parlor or Sleeping Cars on all
Through trains.

For tickets and information apply at any
principal ticket office of the company.

D. J. FLANDERS, Gen'l Pass. & Ticket Agt.
BOSTON.





The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., February 7, 1901.

No. 19

GARFORD RESIGNS

Leaves the A. B. C. but Purchases Eight of its Plants and Organizes a New Parts Company—Its Wide Scope.

To paraphrase an historic term, Garford is himself again!

Once more his hand is free and grasps a directing rein—once more is he back on his own hearthstone and the scene of his early triumphs and with opportunities for even greater ones.

Garford—Arthur L.—you all know him—is now president of the Automobile and Cycle Parts Co., with headquarters in Cleveland, Ohio, and with him are not a few of those who were his colleagues when first he made his mark in the cycle trade and who made their marks with him.

Although the Automobile and Cycle Parts Co. dates from January 1, so quietly was it brought about that few knew of it until this week, when its incorporation in New Jersey, with capital stock of \$5,000,000, was formally announced.

Its composition and property is as surprising as anything else. Its property is all made up of plants—eight of them—purchased from the American Bicycle Co., and with it goes the saddle and parts business formerly controlled by that corporation. These plants in detail are as follows:

The saddle factory at Elyria, Ohio, formerly operated by the Garford Mfg. Co. (Garford's own); the saddle factory at Westboro, Mass., formerly operated by the Hunt Mfg. Co.; the steel stampings factory at Milwaukee formerly operated by C. J. Smith & Sons; the steel stampings factory at Chicago formerly operated by the George L. Thompson Co.; the chain factory at Indianapolis, Ind., formerly operated by the Indianapolis Chain and Stamping Co.; the ball company at Cleveland formerly operated by the Cleveland Machine Screw Co.; the pedal

factory at Cleveland formerly operated by the White Sewing Machine Co., and the sheet steel factory at Chicago, Ill., formerly operated by the Hart & Cooley Mfg. Co.

The business of each factory is taken over from January 1, 1901.

The officers of the new company, elected on Monday last, are as follows: President, A. L. Garford, Elyria, Ohio; vice-president, M. B. Johnson, Cleveland, Ohio; treasurer, F. N. Smith, Elyria, Ohio; secretary, F. E. Lytle, Cleveland, Ohio. Mr. Johnson was also chosen to act as chairman of the Executive Board.

Many of the directors of the new company have been prominently identified with parts manufacture from the very beginning of the cycle industry. They are as follows:

A. L. Garford, formerly president of the Garford Mfg. Co.; J. D. Climo, formerly secretary and general manager of the Cleveland Machine Screw Co.; Windsor T. White, vice-president and general manager of the White Sewing Machine Co.; M. B. Johnson, of the Cleveland law firm of M. B. & H. H. Johnson, counsel for many of the companies mentioned; E. H. Bourne, cashier of the Union National Bank, of Cleveland, and J. G. Hill, president of the Savings Deposit Bank, of Elyria.

Mr. Garford has held the position of treasurer of the American Bicycle Co. since its organization, two years ago. He gave up his home in Elyria to accept the office in New York, but it is no secret that he was restless and ill contained in that position, which he resigned to take up duty with the new company, in whose formation he was instrumental, and which carries him back to where his heart has ever been, and to a directing position for which he has proven himself well fitted.

The incorporation took the form of the filing of legal papers changing the name of the American Saddle Co. (the Garford project which was sold to the A. B. C.), to the Automobile and Cycle Parts Co., and increasing the capital from \$1,800,000 to \$5,000,000.

It is the intention of the new company to engage heavily in other forms of manufacture than those having strict relation to the bicycle industry.

"A start," says an official announcement, "will be made with automobile parts, which will be manufactured in such variety and volume as to greatly expedite the production of motor carriages. The conditions surrounding automobile manufacture to-day are very similar to the conditions which attended bicycle manufacture seven years," continues the announcement. "Now, as then, the completed product is slow in coming through the factories. The outlay necessary to hasten production checks many who otherwise would not hesitate to make automobiles on a large scale. This restraint, more than anything else, has hindered the rapid development of automobile manufacture. Indeed, it is primarily responsible for the prevailing high prices of motor vehicles, for, being forced to the manufacture of parts in small quantities, automobile builders necessarily find the cost of construction greater than it would be if parts were made in volume. So vexatious is this difficulty, and so necessary is it to surmount it quickly, that the new company is entitled to more than passing gratitude from makers, sellers and buyers of automobiles for the promise of relief it holds out. It may be taken for granted by the public that not until automobile parts are made by specialists in that form of manufacture will the prices of finished motor vehicles be less than they are at present. The history of bicycle manufacture shows this to be true, for prices in that industry only declined when the factories which exclusively made parts began to appear and multiply.

"Tubular running gear for carriages will be made by the new company. This is a form of manufacture which is approved by carriage builders on account of its extreme lightness and strength. Wheels for pneumatic tires and many other metal supplies for vehicles will also be manufactured."

Golf goods of every description will be made at one of the saddle factories without interruption of or interference with its main product. Leather specialties of a nature too numerous to mention, but all of the first importance, will be made at the other saddle factory.

The new company will have its headquarters in Cleveland. Half of the sixth floor of the American Trust Building has been leased for general offices.

THEIR QUEEREST CUSTOMERS

Three Dealers Match Experiences and Some Interesting Stories Result.

They were exchanging experiences, and the talk drifted to the queer customers which fall to the lot of the dealer.

"The queerest one I ever had," remarked the dealer from the South, "was, I think, a Frenchman, in a little country town in the backwoods. Soon after the advent of the safety bicycle he purchased of us a 24-inch, solid tire, cone-bearing machine—about the cheapest that we had in stock. After a couple of years rumors of various improvements evidently reached his ears, and incited a desire to increase the speed and up-to-dateness of his mount. When this desire became full blown he simply pestered us with letters, all of them inscribed 'yours truly friend.' The first thing he wanted was 'rattle-trap pedals'; next he wanted ball bearings not only for his wheels, but for his handlebars. It took time to explain that a ball-bearing handlebar was an impossibility, and for a while the man was quiet.

"Several months passed before we heard from him again, and meanwhile his legs had evidently lengthened considerably. This time he wanted his seat-post and handlebar stem lengthened twelve inches and the diameter of his wheels increased six inches; he also desired to know the cost of 'rubber pipes on handlebars and pedals,' whatever that might mean. Receiving assurances that such changes would amount to more than the cost of a new and larger bicycle, he was sceptical and fairly flooded us with his queer letters for several weeks; he subsided after voluminous written explanations, and what his final decision was we never knew, but although years have passed I have never forgotten our 'truly friend.'"

"The queerest customer I ever had," said the dealer from New Jersey, "was a countryman who brought his wheel into our shop to have the bearings inspected. He knew that something was wrong with them, but had no idea of the cause. Our examination showed the ball cups to be covered with a soft metal which entirely covered the inner surface, and which had even oozed out between the crank shaft and ball cups. In reply to our question as to what had become of the balls the countryman informed us that they had 'all squashed out.' Further questioning drew from him that in cleaning the bearings he had lost the balls and substituted buckshot, thinking they were one and the same thing. This may sound a tall story, but it is a fact nevertheless."

"I doubt whether I can call the individual I have in mind the queerest customer I ever had," said the dealer from upper New York State, "but from more than one standpoint he is certainly to be numbered with the queer ones. I had never seen him previous to the time he came to my place with the

front forks of his bicycle bent backward until they almost touched the frame. He was well dressed and apparently well to do, and as nervous as a cat, and for some reason or other anxious to get away at once. He told us he had no time to lose, and offered us \$5 if we could repair his machine within half an hour. While we smiled to ourselves we looked wise, and told him to call around in about twenty minutes.

"When he left the shop we simply reversed the front wheel so that the forks pointed the wrong way; then, taking a run, we bumped it against the wall, and in less time than it takes to tell it the forks were straightened. It was an old trick which we had practised before, but when our strange customer called for his wheel in twenty minutes he was filled with amazement at our facilities for prompt work, and paid the \$5 without a murmur. I never saw the man again, but if you have never straightened a fork by that method," said the New Yorker, tipping the wink to his fellow repairmen, "take my word and try it; it will save you time and earn money for you."

Cycles for the Congo.

That portion of the Congo regions under Belgian government is about to witness the introduction of bicycles and motor vehicles. A Brussels correspondent is authority for the statement that M. Haye, Commissioner-General, is taking a certain number of cycles out with him, and hopes soon to be able to teach the blacks the uses of the wheel. The motor cars will be of a much more solid build than those used in Europe, and in certain regions, like the Ouelle, where the roads and surroundings are flat, they are expected to meet with considerable success.

Brown, of Buffalo, Goes West.

E. T. Brown, sales manager of the Buffalo Specialty Mfg. Co. (the Neverleak people), of Buffalo, is just starting on an extensive Western trip in the interest of his house. Mr. Brown desires, if possible, to become personally acquainted with all the trade. His company's leading cycle specialty is, of course, Neverleak tire fluid; but it also manufactures an attractive line of cycle specialties in addition to Neverleak that merits the attention of the trade.

Weston Takes on the Acme.

Frank F. Weston, now well established as a New York jobber, has added another important account to his list, that of the Acme Coaster Brake Co., of Rochester, which he will hereafter represent in this territory. Weston had not a little to do with the popularizing of the Morrow coaster-brake, and the experience then gained should now serve the Acme interests to good purpose.

Dickerson, Acting Treasurer.

The vacancy caused by the resignation of A. L. Garford as treasurer of the American Bicycle Co. has not yet been filled. Pending the election Secretary C. W. Dickerson is acting treasurer.

SEEKING FAIR PLAY

Effort to Offset Massachusetts Court's Damaging Decision Against the Bicycle.

At the instance of two Somerville bicycle clubs, Representative Robert Luce last week presented to the Massachusetts Legislature a petition asking that the rights of the bicycle be more clearly defined.

With an eye to the future, and with commendable forethought, the petition includes motorcycles within its scope, the first occasion when legislation in behalf of the "twentieth century bicycle" has been sought.

The petition asks that a bicycle, motorcycle, automobile, or vehicle of kindred nature shall be deemed a carriage within the meaning of that term in the statute requiring roads to be kept in reasonable repair.

As the matter stands to-day by reason of the well remembered decision of the Massachusetts Supreme Court last June, a bicyclist, and presumably an owner of a motorcycle, cannot recover damages for injury due to defects in the highway. The court held a bicycle to be a machine rather than a vehicle, and reversed the decision of the lower court giving Lawrinia Richardson damages of \$850 for personal injuries received while riding a bicycle in Danvers, by reason of encountering a depression in the highway.

The statute, originally enacted in 1786, provides that highways and other ways shall be kept in repair at the expense of the town, city or place where they are situated, "so that the same may be reasonably safe and convenient for travelers, with their horses and carriages, at all seasons of the year."

As will be recalled the reason advanced by the court for its decision was the fact that the bicycle is of little use in wet weather or on frozen ground, and that the pneumatic tire is peculiarly liable to puncture. Wheelmen answer this by saying that a puncture very rarely results in a fall, and that for a road to be kept "reasonably" safe does not mean that it must be in such condition that punctures will be impossible. Furthermore, they argue that because a sleigh is used for only a few days in the year, is no reason why a town may leave open a ditch into which a sleigh may fall.

Said the Court: "It would impose an intolerable burden upon towns to keep their roads in such a state of repair and smoothness that a bicycle could go over them with assured safety."

To this the cyclist replies that he asks nothing of the sort, but simply asks that the roads be in a condition reasonably safe for his vehicle, making due allowance for its characteristics. And he suggests that the owner of an automobile may ask the same. He thinks a jury may properly be permitted to decide whether the defect causing an injury was such as the town or city ought to have prevented. But that a defect which would wreck a buggy may not result in recompense to the traveller who uses any vehicle other than one hauled by a horse, he thinks unreasonable and unjust.

LIKE ANGEL'S VISITS

Were the Gains in Foreign Trade—The Year's Record in Detail.

Details of the year's exportation of cycle stuff, the totals of which were published exclusively in last week's *Bicycling World*, are now available.

As was then stated, the loss during the twelve months of 1900 amounted to \$1,759,223, the total exports for the year being \$3,061,061, as against \$4,820,284 in 1899.

The loss was general throughout Europe, the greatest shrinkage, in dollars and cents, \$466,921, being in the business with Germany; France, with a loss of \$268,857, was the "next worst" country. Comparatively speaking, the loss in Great Britain, while heavy, was not proportionately as large as was to have been expected.

The shrinkages in Cuba and Argentina serve to show how quickly the demands of thinly populated communities can be satisfied.

The gains were like angels' visits, few and far between. Only Japan, the Philippines, Santo Domingo, Hong-Kong and the minor "other countries" appear in the column of increases, and the first two account for practically all of the \$177,653; the other three account for less than \$1,000 between them.

The record in full, showing the exports for December and for the twelve months, and also the losses and gains by countries, follows:

Exported to—	December—		--12 months ending December--		December—	Losses.	Gains.
	1899.	1900.	1899.	1899.	1900.		
	Values.	Values.	Values.	Values.	Values.		
United Kingdom.....	\$32,846	\$18,386	\$1,699,127	\$684,536	\$442,899	\$241,637	....
France	41,519	3,341	517,183	450,829	181,972	268,857	....
Germany	30,528	8,017	1,636,207	807,015	340,944	466,921	....
Other Europe.....	74,515	39,179	1,362,199	944,950	670,876	374,074	....
British North America	12,054	5,137	608,195	536,876	369,119	167,757	....
Central American							
States and British							
Honduras	178	288	7,091	4,820	2,727	2,093	....
Mexico	2,075	1,873	57,947	41,897	15,901	25,996	....
Santo Domingo.....	7	54	631	330	336	....	\$36
Cuba	20,400	1,581	5,286	111,702	68,466	43,236	....
Porto Rico.....	123	....	2,631	2,771	1,461	1,310	....
Other West Indies							
and Bermuda.....	4,209	3,031	72,464	63,965	49,523	14,442	....
Argentina	8,661	3,879	131,624	272,995	75,694	197,301	....
Brazil	3,752	783	99,232	35,065	19,055	16,010	....
Colombia	82	21	7,986	7,834	3,525	4,309	....
Other South America.	4,648	3,184	54,104	65,365	41,604	23,761	....
Chinese Empire.....	2,357	1,225	27,863	23,822	21,333	2,489	....
British East Indies..	8,758	4,879	155,265	128,244	62,322	65,922	....
Hong-Kong	511	1,679	9,355	9,769	10,499	....	730
Japan	20,783	19,587	128,752	138,155	245,622	....	107,467
British Australasia..	8,943	25,371	247,146	239,022	227,534	11,488	....
Hawaii	2,125	....	....	45,466	32,473	12,983	....
Philippine Islands...	1,180	6,344	100	2,461	71,738	....	69,277
Other Asia and							
Oceania	4,507	2,576	79,066	51,058	28,618	22,377	....
Africa	2,398	9,946	181,004	151,063	76,373	74,690	....
Other countries.....	....	....	1,739	274	417	....	143
Totals	\$287,159	\$160,361	\$7,092,197	\$4,820,284	\$3,061,061	\$1,759,223	\$177,653

Sprocket wheels are a feature of cycle construction which receive scant attention nowadays. The excessively large sizes and fanciful designs so popular a few years ago have passed into the background, and are hardly missed.

Good Man Gone.

One of the familiar faces that was missing from the Philadelphia Cycle Show was that of William D. Supplee, treasurer of the well known jobbing house, the Supplee Hardware Company. Mr. Supplee died the previous week, January 24, after an illness of but four days, pneumonia following an attack of pleurisy being the disease to which he succumbed. He was 39 years of age and prominent in club, cycling and hardware circles. He was a veteran wheelman, having been one of the early captains of the Pennsylvania Bicycle Club.

Receiver for Sercombe's Money.

As a result of the attachment for \$11,329 obtained in September last by Thomas W. Wampler, Justice Blanchard, of the Supreme Court, has appointed Alexander Bremer receiver of the money in the hands of the Mercantile National Bank, New York, deposited by Parker H. Sercombe, of the City of Mexico, either in his own name or that of the American Bank (Mexico), composed of Mr. Sercombe and others.

Brightbill Gets Six Months.

David Brightbill, a dealer at Lebanon, Pa., was last week sentenced to four months' imprisonment in the County Jail, having confessed to aiding an escape. Brightbill pleaded guilty to furnishing a steel saw to his cousin, John A. Brightbill, of Myers-town, by means of which he and Samuel Engle, of Colebrook, almost effected their escape. Both men are now serving long terms in the Eastern Penitentiary.

CYCLES IN SIAM

All Classes Ride, Royalty Setting the Example—American Bicycles Dominant.

While Siam has long been known as a healthy market for American bicycles, recent reports have stated that cycling interest in that country was on the decline.

An official report from Consul-General King, at Bangkok, however, tells quite another story. He says:

"The first consignment of safety bicycles was brought to Bangkok by Dr. P. T. Carrington, an American dentist, in 1896. Previous to that time one or two of these wheels had been imported for private use. There are now in this city between two thousand five hundred and three thousand bicycles. They are to be seen in all parts of the city and are used by all classes. The King of Siam rides an American bicycle of the latest and most improved model, and it is by no means an uncommon sight to see the Ministers of the Government coming from and going to their duties, and even to public functions, on their wheels.

"The Minister of the Interior has systematically encouraged the use of the wheel, believing that its employment will lead to better roads in the city and in the country towns. He is the head of a large bicycle club that numbers upward of four hundred members. Among the members are many of the princes and Government officials, and in the favorable seasons of the year this club indulges in long runs to the remote parts of the city. These runs are generally held during the cooler part of the night, and wind up in a banquet well toward the morning.

"The crowning endeavor of this club was a grand bicycle pageant given some months ago in the presence of the King and Queen of Siam, and participated in by nearly every prince of the country. The entire affair was a great success.

"This city is most favorably adapted to the use of bicycles, the streets being level and fairly well paved in all directions. This is especially true of the streets within the walled city and between the old and new palaces, a distance of some three miles or more. Any pleasant afternoon, when the King or Queen takes the favorite ride to the new palace at Dusit Park, several members of the royal household—ladies, gentlemen and children—may be seen accompanying the carriage on their wheels.

"The bicycle has come to Siam to stay. It is finding its way into the outlying cities and villages. And as a medium of civilization it is bringing with it better roads and better means of communication. The wet season does not witness the enthusiasm of six months ago, but dealers report a steady sale. The American wheel is by far the favorite in Siam, representing between 75 and 85 per cent of all the bicycles used in the kingdom.

Wetherbee Bros., Arlington, Mass., are enlarging their present place of business and will add power and machinery for the repairing of all kinds of automobiles as well as bicycles.



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BAY CITY, MICH.

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Tire Truths.

There are many men of many minds—many tires of many kinds—but when you come right down to inborn virtue, Fisk Tires are the best that ever rolled on rims.

And this is why?

Better rubber, a special prepared fabric of our own, experienced tire workmen, peculiar features such as unbreakable, unleakable valve stem, and other advantages that will appeal to a mighty particular man with an eagle eye focused on merit.

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Address us at P. O. Box 2349.

NEW YORK, FEBRUARY 7, 1901.

Orders for "Motocycles and How to Manage Them" can now be accepted only subject to delay. The edition has been exhausted and the book is being revised and brought up to date. Deliveries cannot be promised before the end of February.

The Shattering of the Monument.

It would be unfair to term it disintegration or a break-up, but it is impossible to accept the most recent turn in the affairs of the American Bicycle Co. as other than the final shattering of a beautiful dream—the dream of a gorgeous rainbow at the end of which there was to be found a bottomless jar of gold.

The vision of a giant's grasp on the cycle trade of the world, of a mighty concentration that would control everything and set the price of everything, from the raw stuff to the finished product, of a general bowing of heads and bending of knees—this vision is no more; it is up above the clouds.

First passed the tires, then rims; now fol-

low the saddles and the parts. And what remains? The finished bicycle and—shall we say?—the finished automobile.

And who will say that one or the other will not pass next?

Who will say what the \$40,000,000 of capital stock now represents?

Who remains to picture the beauties of concentration? Of what does the picture now consist, and how hangs it?

To vulgar eyes the well sketched dream now looks, if not a shattered monument of Concentration, at least one badly chipped.

But is the chipping due to knockings from within or from without, or both? And—and—what next?

That's the question that the trade now asks.

Opening of a Vast Field.

While the far away Kingdom of Siam does not cut any very large figure in the world's affairs, having been until lately best known to Americans as the birthplace of the Siamese Twins, it is decidedly getting along.

No better evidence of the real awakening could be found than is contained in the extracts from the nited States Consular reports given in another column regarding the progress made among the Siamese by the bicycle. King and court alike are infected with the desire to ride it, and the stamp of approval thus set upon it is certain to carry it into even greater popularity.

Putting the Worst Forward.

There are not a few observers who believe that of late years the finish of bicycles has, on the whole, undergone a deterioration. This criticism is levelled at both the enamel and the nickel, and is held to be the natural result of the cheapening process which has been going on for years.

Examination of nearly all the machines exhibited at the recent show revealed the fact that there was much to justify this charge. While there were a number of machines there which upheld the best traditions of the trade in this respect, they were unquestionably in the minority. Probably two out of three shown were of a character which it would be hard to defend.

This is the more remarkable when it is remembered that these machines were on exhibition, and that in the past, at least, they would have been resplendent with a lustre and gloss beyond the ordinary.

It was very evident, however, that the

machines most open to criticism had not been given these extra touches. Even the most perfunctory efforts to "spruce them up" a little would have changed their appearance materially, but it does not appear to have been thought worth making.

It is a consoling thought that the machines delivered will be at least equal in finish to the ones complained of. It is almost out of the question for the deterioration to go any further, and the worst that could be said of the machines has already been said.

It is much more pleasing to recall the smaller number of irreproachable machines, and to remember that they, rather than those complained of, really represent the trade at large.

Score One for the Makers.

Makers have become so accustomed to receiving more kicks than halfpence that they have grown hardened, and pay little attention to the criticisms showered upon them so liberally.

It is so much easier to criticise than to praise that the habit grows on us, and we are very apt to preserve silence even when a good opportunity offers to deal in laudation.

A case in point is found in the able manner in which the makers met the problems connected with the incorporation of coaster-brakes in cycle construction.

All manner of trouble was predicted as certain to arise from their use.

It was held that coaster brakes themselves would go wrong in season and out of season, and fears were entertained that the device would in consequence receive a black eye, which would go far toward damning it.

Nothing of the kind happened. Instead, coaster brakes stood up in a manner that no one would have ventured to prophesy, hardly even to hope, a year ago. Accidents have been almost unheard of, and this points conclusively to a uniform excellence of construction and fitting that could not possibly have been improved on.

Again, it was the general opinion that a material strengthening of cycles would have to take place in order to stand the strain consequent upon the adoption of coaster brakes; and that such strengthening would inevitably result in an increase in the weight of machines.

Whether such a strengthening has been made is not quite clear; but whether it has or not, the attendant increase in weight has failed to materialize.

On the other hand, troubles resulting from too great strain and due to the use of coaster brakes have not even been heard of, and it is, therefore, very plain that they have been guarded against in some manner.

For this signal triumph, however it may have been brought about, no praise has been bestowed. Failure would have been followed by immediate and severe condemnation, but success is regarded as a matter of course.

It is tardy justice, therefore, to record that cycle makers have added one more to their many triumphs; that they have done much more than was expected of them.

How England Offers us Opportunities.

"Pessimistic prophecies regarding the future of the motorcycle seem to be the rule rather than the exception over here," writes our London correspondent. "Many doubt that it has a future," he continues, "the public demand being for voiturettes."

From the standpoint of the American cycle trade, these dark brown predictions hold much promise and encouragement, strange though the statement may seem.

The average English manufacturer and merchant care little for experience. Their own experience counts for little, while nothing is more preposterous than the idea that they can learn anything from the rest of the world. The bare thought of it is repugnant to the English mind.

We can readily imagine that every Englishman who now owns a bicycle will have a voiturette or nothing! They have so very much more money than the ordinary American wheelman, you know! They all have stables and grooms, you see, and the bloom-in' wonder is that they ever took up such a commonplace trap as the side slipping bicycle! Don't overlook that side slip! No British essay, reference or compendium is complete without it. Side slipping is jolly dreadful, dontcher know, and it is patented in Great Britain!

We are really jolly glad that our cousins across the way are so affluent! We hope they will keep right on talking "voiturettes or nothing." Their fear, derision or belittlement of the motorcycle makes our opportunity. We are not deriding or overlooking it. In the motor bicycle at a popular price and capable of steerage and storage anywhere, we can see a future so large and so rosy that we are welcoming it and perfecting it, and while Johnny Bull may sing small of it, "the future in the distance" hold visions of

American motor bicycles being shipped in no small quantities to England and the rest of the world, for we doubt that the average mortal abroad is so much richer in money, storage room and inclination than the average American.

The motor bicycle will stimulate not only our home trade, but our foreign trade as well. It cannot well fail to so do.

Pulling two Ways.

Across the water the trade and public appear to be in worse quandary than ever. Instead of complaining, as in the past, of the monotony of construction, they are threatened with a plethora of changes, and they are ready to cry that they could be happy with either were t'other dear charmer away.

First came the spring frame bicycle. It was the outcome of the cry against too much rigidity, too much vibration, and it secured a hearing without any trouble. The result of the first trials of such machines was satisfactory, and there appeared to be no doubt that vibration reducers were in for a good, even if limited, run.

Then the cross frame entered upon the scene. Its advocates said that the ordinary diamond frame, instead of being too rigid, was not rigid enough. More tubes to the frame was the panacea that was wanted to check apathy, and machines containing them were straightway placed on the market, while others that had slumbered had new life injected into them.

At the present time it is the cross frame that has the public attention. New forms of it are springing up in surprising numbers, and trade, press and public talk of little but it.

What the outcome will be few venture to prophesy. But unless deflected from its course, the cross frame movement will probably hold the public attention when the season opens in the tight little isle.

No Need for Hurry.

It was not until the safety bicycle had been on the market for several years that a design suitable for women riders was brought out.

This machine at once achieved a great deal of popularity, which steadily increased, and there is little doubt that the participation of women in the pastime had much to do with its subsequent tremendous vogue.

It is noteworthy that in this, as in so many other respects, motorcycles are following the same lines which characterized the

early days of the safety bicycle. The present machines are designed for men, and small thought is given to what the weaker sex may be thinking about the matter.

It is very evident that this neglect of drop frame machines cannot continue very long.

Even the difficulties in the way of making motor bicycles—with the tricycles and quads, there is, of course, no trouble—suitable for women will only retard, not stop, their coming.

Against the problem of where to place the motor is to be put the fact that women will be benefited even more than men by the new type of machine. It is the weaker sex which feels most strongly the deterring effect of head winds and hills.

These more than anything else have been responsible for the slackening of their interest in the pastime, and no more effective means of reviving it could be found than to place at their disposal machines which not only rob head winds and hills of their terror, but make them actual pleasures, welcome at any time.

At present the plan of placing the motor between the wheels is the one most in favor; and unfortunately this is just where it cannot be placed if women are to ride the machines—unless, indeed, it is placed in the rear of the crank hanger.

If the motor were placed in front of the handle bar or steering head or in the rear wheel there would be no such trouble. But unfortunately, such practice does not commend itself to the majority of designers, and their stand against it appears to be a sound one.

Nevertheless, it may be set down as certain that the time will come when drop frame bicycles will make their appearance and come into extensive use.

The difficulties referred to, and the fact that the motor bicycle is a much more complicated machine than the pedal-driven one, requiring more skill and self-possession to manage, can only avail to retard the coming of the women's pattern. They cannot prevent it.

All this, however, is a matter for the future. Not until some approach to standardization in men's machines is reached need makers concern themselves over much about drop frames.

"Enclosed please find check for your most excellent journal, the 'Bicycling World'—quite the best in the country."—A. F. Pringle, Northfield, Minn.

BRITISH BLINDNESS

Refused to see Merit of Motorcycles—Wail of Distress Will be Heard Later.

London, Jan. 23.—Pessimistic prophecies regarding the future of the motorcycle seem to be the rule rather than the exception over here; indeed, not a few of the prophets think that this class of machine has no future. The public demand, they say, is for voiturettes; and in this latter statement they are undoubtedly correct.

The only thing that saves the motor quad, for instance, is the fact that the voiturette is so dear, but before the season closes, it will be possible to buy a reliable car of this class for about the same price as a first class quad. Under these circumstances it is little wonder that the public prefer the voiturette.

But what of the motor bicycle and tricycle? At present the demand for the former is decidedly limited, owing to the fact that machines of this type have not been very much tried, and to the fear of ride slip, which many people have, and I fancy that this dread will militate against the sale of motor bicycles for some very considerable time.

As for the motor tricycle, I think that for the next two or three years this will be practically the only type of motorcycle for which there will be a market here. There are many thousands of persons here who cannot afford a voiturette, and will still take to a motor of some kind. The comparatively low cost of a tricycle will tempt these. There is now not the least difficulty in getting a really reliable motor tricycle for \$250, and this made to the requirements of the rider. If a ready-made machine be taken, then the cost is often a good deal less, anything from \$200 for a machine fitted with a 2½ horse-power genuine De Dion motor. At prices like this, it follows that the average voiturette is out of the running, and, in addition to this, it must not be forgotten that the extra speed obtainable from a motor tricycle is a great attraction to many.

All this means a very serious matter for those firms who are only supplying or making motorcycles in comparatively small quantities, and at a high cost. The fact that the average local cycle maker can now turn out a motor tricycle for \$250 will make a great deal of difference to these concerns, and it follows that the makers of motor component parts will reap the benefit.

But even motor parts are sometimes on the market at prices much less than their actual manufacturing cost. The other day I was offered a complete tricycle axle, balance gear and bridge, the axle being provided with the large toothed wheel, for \$10. The hubs of the driving wheels were also included in this price, and had I been thinking of building a motor tricycle at the time

I should have bought the goods. It is this price cutting which is upsetting the motor trade here, so far as motorcycles are concerned. A little judicious cutting in the price of cars we can well do with, but in the motorcycle business it is another matter altogether.

SOMETHING NEW IN TWO-SPEEDS.

A new two-speed gear, which in the central position also gives a free motor, has just been placed on the market by the United Motor Industries, Ltd. The gear is very neat, and has the advantage that the toothed wheels are always in mesh. The usual type of sliding sleeve is provided, but instead of friction clutches—which, if effectual, must be large—a series of catches, or cams, are arranged to connect with similarly shaped hollows on the sleeve carrying the gear wheel required to act. The other wheels remain stationary when not in use, which certainly seems a good plan. It is in some respects a more simple device than the De Dion two-speed gearing, but its cost is a bit high—considering the comparatively small amount of work in it—for it is sold at the same figure as the De Dion reversing gear. Still, there is more work in it than there is in the latter device, and those who have tried it speak of it in the highest terms. It certainly looks a good thing.

UNUSUAL MOTORCYCLE ACCIDENT.

A somewhat extraordinary motorcycle accident occurred near London last Saturday. It appears that the rider of the tricycle was about to pass a cart proceeding in the same direction as himself, when he observed another vehicle approaching. He therefore switched off the current, and then, when the road was clear, switched it on again in the usual manner. But as the throttle had remained open—nobody ever thinks of closing it under such circumstances—several charges of gas had passed into the exhaust box without ignition. The spark then ignited the next charge, and the latter, escaping at full heat into the silencer, caught up a portion of the gas from the previous stroke of the motor. The result was the usual "pop" which is experienced by every motorist under these conditions, but this time the "pop" was extra loud and extra strong, for the silencer was rent in twain, and the metal tore the rider's calf very badly, so badly indeed that medical aid had to be summoned at once. The moral is to see that all silencers are really sufficiently strong to resist any possible explosion, which may occur within them in the event of the current having been switched off and suddenly turned on again.

Doubleday Frontenacs.

The W. A. Doubleday Co., the Syracuse jobbers, have purchased the Frontenac bicycle business. The Frontenac factory at Syracuse has been purchased, and is being used by the Stearns Steam Carriage Co., but the Doubleday people have arranged for the manufacture of a Frontenac bicycle under their nameplate.

FRENCH FORESIGHT

Figures Brought to Prove the Benefit and Economy of the Motorcycle.

Paris, Jan. 22.—Automobilists here are discussing the question as to what is the most suitable vehicle for the country doctor, the commercial traveller and others who want something that will allow of their getting about quickly at the lowest possible cost, and after wading through the figures given by owners of all sorts of vehicles the only conclusion to be reached is that the motorcycle is by far the cheapest and most convenient.

Of course, there is nothing very surprising in this, as, owing to the difference in first cost, the motorcycle could stand more expense on repairs than the voiturette and yet come out more economical; but the results that are being collated show that the tricycle is a long way cheaper in every respect. For those who are nearly always out and have to cover long distances at fairly high speeds the motorcycle is obviously just the thing. It is much faster than the voiturette and is always ready to start, and once the owner knows his machine thoroughly he can go anywhere and do anything with it. The rider may not be as comfortable as in the carriage, but with the padded seats now fitted to tricycles in place of the old saddle you can go a long distance without feeling cramped or tired.

The list price of a good motor tricycle in Paris is \$320, and to this add \$20 for accessories. The storage in Paris comes to \$24 a year, and, supposing you average forty miles a day all through the year, your gasoline will cost about \$121, while there are further charges of \$10 for tires, \$20 for repairs, while lubricating oil, taxes and other things bring up the total to about \$184. As with good care you can use your machine for four years and then sell it for \$100, you have to wipe off the first cost in that period, so that you add \$55 to the previous total, thus making the entire year's cost of a motorcycle \$239. This, of course, applies to Paris, where everything is dearer than in the country, and the provincial owner would probably dispense with the cost of storage and would pay less for his gasoline. The item for gasoline, in fact, is rather high, as very few riders would consume three quarts a day all through the year. The total of \$239 may be regarded as the maximum of yearly expenditure in the case of a machine which is put to sheer hard work and is carefully looked after, and this represents an enormous economy as compared with light carriages. A man constantly about the country would more than save the cost of his motorcycle in railroad and cab charges.

After all, the cost of running a motorcycle depends very much upon the skill of the rider, and it is just here that skill and experience in motocycling have a decided com-

mercial value. An owner who took no interest in his machine would soon throw it up in disappointment. He would be constantly in trouble, and if he were unable to put things straight himself his repair bill would become as long as his face, and after a year's use he would probably be glad to dispose of it at any price. There are many owners in this case, as is evident from the large number of second hand machines that can be picked up cheaply on the market, but these disappointed owners are far less numerous than might be expected in view of the special knowledge required to drive a motorcycle. The failures are due either to laziness or to an utter absence of mechanical instinct.

Taken as a whole, the French are decidedly mechanical. Anything in the machinery line interests them, and the more they learn about mechanism the more they want to know. Their interest grows in the motorcycle as they become acquainted with it; they are absorbed in its many little intricacies, and once they have mastered them the motorcycle is a reliable machine that will do remarkably good work. The expert rider is not only spared a lot of unnecessary trouble with his machine, but he makes it last much longer; and, besides being a splendid instrument for the tourist and the commercial man, the motorcycle is a decidedly good investment. Again, the expert has the further advantage of being able to economize his consumption of gasoline. He finds the $2\frac{1}{4}$

h. p. motor quite sufficient for all ordinary purposes, and, knowing exactly how to utilize this power to the best advantage by regulating the mixture of gas and the admission according to the resistance, he secures a notable economy in consumption, which may be reduced to less than two-thirds the figure given above. Others who cannot get the most out of the standard type of motor seek to increase the power either by a larger bore or by new methods of admission, and other devices, which all, of course, aim at getting a higher compression or a bigger volume of explosion mixture, with the result that while the power is increased there is a greater consumption and the risk of overheating augments in a considerable ratio. The man who will take the trouble to understand his motor will have nothing to do with these devices, and he is rewarded by getting the maximum of pleasure and profit.

Some of the foreign journals seem to have very little faith in the future of the motorcycle. They look upon it as merely a temporary expedient which will only continue to enjoy favor until it is knocked out of the market by a satisfactory type of voiturette. It is true that a number of voiturettes are trying to encroach upon the field of the motorcycle by adopting motors of the same pattern and preserving some of the characteristics of cycle design, but there is very little chance of the two being merged into one, for the reason that the mechanism of

the motorcycle, which is the simplest, cheapest and most economical, cannot be satisfactorily adapted to the light carriage.

In the cycle you get the lowest possible weight as the advantage of auxiliary pedals; in the voiturette the weight is considerably increased by the carriage work, and to produce an efficient vehicle the power of the motor must tend to augment, at the same time that the price is nearly double that of the tricycle.

The only advantage of the voiturette is that it is more comfortable and you can carry a little luggage, but against this may be set off the fact that the tricycle may be converted into a quadricycle for two persons in a few minutes, and will go in places where the present type of voiturette, propelled by a motor of three and a half horse power, would be perfectly helpless. No; the motorcycle and the voiturette have distinct uses. When the voiturette is perfected it will be taken up by a considerable class of buyers who do not want to burden themselves with a more expensive car, but the motorcycle will always find favor among the people who need a handy, cheap, economical and serviceable machine.

Champion's new Flyer.

The De Dion-Bouton Motor Co. have shipped to Albert Champion, to be used for racing purposes, a 7 horsepower single cylinder motor tricycle, which is claimed to be the most powerful motorcycle using but one cylinder in existence.

WOLFF-AMERICAN, REGAL and HOLLAND Bicycles

Three Excellent Lines—
Each One Complete.

If not already represented in your territory,
it will pay you to investigate.

STEARNS BICYCLE AGENCY,

General Sales Agents,

Syracuse, N. Y., U. S. A.

SPIDER AND FLIES

How the Former got Inventors into its Parlor and Learned Their Plans.

It is now common property that the Automobile Patents Exploitation Co. was merely one of the many shadows of Charles R. Flint, and that behind one of the trees in the deeper shadows was that sometimes mysterious something, best known to the cycle trade as "the A. B. C."

To "insiders" the fact has been known for some time, and now that secrecy has been thrown to the four winds, there are not a few who will probably go to a quiet outhouse and kick themselves roundly.

The story of the Exploitation Co. is a most interesting one. It first made its appearance about a year ago in the advertising columns of certain trade publications, an address on William Street, New York, being given as its office and a young man named Hyde figuring as its secretary.

The Exploitation ads. were as seductive as even the title of the "Company" itself. They made it appear that the company filled a timely, long felt and semi-philanthropic want; in other words, the "company" offered to examine and buy, sell and exploit patents relating to automobiles and motorcycles and to find "angels" or furnish capital for the deserv-

It was the very thing hundreds of inventors sought! Hungry fish never swallowed bait more readily and unsuspectingly. Men with automobiles and motorcycles in their heads were in every city and in every town. Their inventions were all world beaters, of course, and only such slight obstacles as the lack of factories, material and capital hampered the journey to fame and fortune.

When these inventors saw the Exploitation ad., with its suggestions of all that was needful, it requires small imagination to picture their transports of joy. To them the ad. was as a lighthouse to a ship in distress.

How many patents were submitted to the Exploitation Co. may never be known, but it is generally believed that the number was considerable. If any of them seemed to hold promise the patentee received a call or a letter from the "company's" expert, Ralph D. Morgan, of Worcester. Mr. Morgan knows his book well and thoroughly, has a superb memory for mechanical details and is quick and accurate with the draughtsman's instruments. How many private views and "inspections" of embryonic automobiles and motorcycles he enjoyed is best known to those whom he represented.

Be that as it may, Morgan and his good opinions were forever being heard of in most unexpected places, and at most unexpected times. He undoubtedly keyed up many an inventor's hopes to more than concert pitch, but so far as known exactly one purchase

came of his inspections and at that the purchase involved very commonplace figures.

The Automobile Patent Exploitation Co. is no more on William Street. It dried up and disappeared as quickly and as quietly as it sprouted, but during its year or more of life the information and ideas that it obtained must have been both valuable and laughable. Not all of the inventors who sought its help were lean and hungry and obscure. It was for the other kind that the trap was baited and not a few there were who opened their hearts and mouths and told all. Those behind the Exploitation Co. "had a line" on many a man's price and promotions, intentions and pretensions, and capital or lack of capital, when the man would have chocked himself first had he known for whom the information was wanted.

They are the men who will kick themselves, now that the Exploitation Co. has dropped its mask.

In the light of to-day it is not strange, therefore, that ex-Secretary Hyde and ex-Expert Morgan are now attached to the headquarters staff of the A. B. C. The president of the A. B. C., you know, is quite close to Mr. Flint.

About Buffalo's Tube Mill.

Particulars of the Buffalo's steel tube mill, about which some mystery was wrapped, are now obtainable. The projectors prove to be the United States Tube Co., incorporated under the laws of West Virginia, of which Harvey K. Flagler, of Boston, is president and Charles H. T. Wise, of Boston, is treasurer. The company is capitalized at \$1,000,000, and, it is stated, will begin to build in about ten days. They say that the main reason for locating in Buffalo is that the new company will be near the big plant now being constructed at Stoney Point, which will furnish steel billets needed in making pipes and tubes. It does not appear likely, however, that steel tubing for bicycles will cut much of a figure in the concern's affairs.

Something New Coming From Erie.

F. A. Wilcox, general manager of the Pennsylvania Rubber Co., of Erie, was among the visiting tradespeople in New York last week. He promises that the Pennsylvania people will have something new and interesting for the trade within the next week or two.

Concerning the suit brought against them by Morgan & Wright for alleged violation of patents Nos. 502,047 and 502,048, of July 25, 1893, Mr. Wilcox would say little, although that little was said in a confident strain.

These Pay Taxes.

According to the Auto-Velo, there are in France 6,081 motorcycles and 735,541 ordinary cycles. The showing of motorcycles is remarkably good, especially in view of the fact that the figures are supplied by the Exchequer, which charges taxes only on machines in actual use.

IVER JOHNSON'S JANUARY

Best in Seventeen Years, They Report—Plans Making to Keep up the Record.

That there is business to be had if it is sought in the right way the statement that comes direct from the Iver Johnson factory at Fitchburg goes to prove. The Johnson people report that January, 1901, was the greatest January in their seventeen years connection with the cycle trade.

Their orders and shipments for the month exceeded by more than 40 per cent the record for any previous January, a record so remarkable at this time that following the Johnson report of a 68 per cent increase in 1900 the trade will rub its eyes and instinctively turn them toward Fitchburg.

Those familiar with the Iver Johnson policy will not be wholly surprised, however. The alertness, the creating of opportunities and taking advantage of others have been such as to compel the admiration of those familiar with moves that have been made. If there is such a thing as commercial strategy—and why should there not be?—they have the trait well developed up Fitchburg way.

Following these glowing reports comes the news that Harry D. Elkes, the long distance champion, has been retained by the Iver Johnson people for the 1901 season and a report that Jimmy Michel also may be added to the "stable." Both men are now in Hot Springs, preparing for active training in Florida.

In the wake of these reports is another one that deals with an Iver Johnson surprise that will stir the trade considerably when it comes about. No hint of its nature is possible, but the next sixty days should bring developments.

What Thomas is Doing.

As at the New York show, the Thomas motor bicycle at the Philadelphia affair proved one of the chief attractions, and, aside from the orders booked, performed valuable missionary work. More than 500 people were taught to ride during the week. In this respect the Thomas people are performing a service that is invaluable to all and any interested in motorcycles and must redound to the benefit of the entire industry. In a word, and few will dispute it, they are not only interesting and instructing but awakening the public.

To Increase Import Duties.

Measures for the increase of the import duties on certain articles has been drawn up and presented to the Chamber by the Rumanian Minister of Finance. Among the articles velocipedes are included, the duty on which it is proposed to increase from eight leys to twenty leys each. One ley is equal to about 20 cents.

PIERCE PRIDE

Finds Expression in a Catalog that is Itself out of the Usual.

If all Buffalo manufacturers are as zealous as the George N. Pierce Co. in advancing the interests of the Pan-American Exposition in connection with their own, the Exposition is fortunate indeed.

Not only have the Pierce people styled their leading model the Pan-American Special, but the cover of their 1901 catalogue and the interior illustrations are emblematic of the approaching Exposition. It gives the publication an interest that adds to its value. Its general layout and its letter press are in keeping with the Pierce reputation; the arrangement of the specifications of the several models, for instance, is novel and worthy of general imitation, while the preface of the book is happily worded, expressing some timely truths and betraying the Pierce pride strongly and becomingly, but without bombast or "fireworks." Here's the manner in which it is done:

"The opening of the twentieth century finds the bicycle the accepted vehicle of the people. The fad has passed, the era of simple economy in transportation has come. No creation of man has ever been perfected before which carried so large a percentage of weight in proportion to its own weight. No device has ever been suggested which affords more economy, health and pleasure than the bicycle.

"Accepting these facts, the George N. Pierce Company has put its entire energies upon the development of perfection in road models, having exhausted all the previous experience of builders. The result has been the development of the cushion frame models. First, the chain driven, which, with the coaster-brake, marked the acme of construction in 1899; second, the chainless of 1900, and, third, the Pan-American Special of 1901, combining the cushion frame, chainless, with hub coaster-brake. No maker has ever equalled this model. In the future they may copy, but they cannot excel. The George N. Pierce Company, by its own enterprise and foresight, has thus been carried to a position as builders of fine wheels second to none, and far in the van. This development has given the people, at a fair price, models of comfort, beauty and lasting value never before attempted. That this enterprise has been appreciated is attested by every rider conversant with these models, but calls forth from both agents and competitors alike enthusiastic praise. The era of the lumber wagon has gone, the era of the luxurious vehicle is started.

"The Pierce line for 1901 represents all that is good, based on past experience, and with an eye single for serving the riding public with a wheel representing the maximum of economy, health, pleasure and comfort, with a minimum of annoyance, repairs

and accident. The prices of Pierce wheels when in excess of other makes represent a positive saving to riders in subsequent cash outlay."

New Ills in its Train.

One can never tell, when introducing a new form of construction, what far-reaching consequences it will have.

Here is an English engineer, an authority on cycle construction, stating in unequivocal language that the adoption of "cross frames" necessitates a strengthening of the front forks. He says:

"In the ordinary diamond frame the front part, being a quadrilateral, is somewhat elastic, thus not only tending to absorb vibration for the rider's comfort, but also relieving the fork crown and adjacent parts somewhat in the matter of violent shocks.

"With a triangulated front frame this tendency is absent, and unless the front fork and stem are considerably strengthened there will probably be further trouble at this already weak part of the safety bicycle design."

As the great difficulty even now is to get makers to turn out machines with a bit of reserve strength in these very important parts, we may congratulate ourselves that we are not gone daft over cross frames.

Saddle with Screw Springs.

Of German invention is a spring cycle saddle, the rear part of which is supported by several screw springs, preferably four in number, fastened at the ends of a hand spring passing through a hoop by means of a cap in the form of a nut, the edge of the cap being so cut out as to allow the passage of the spring, and the cap is held fast by riveting the end of the hand screw. The four bearing springs connecting the two hoops impart great elasticity to the saddle, and obviate, on the other hand, any disagreeable side motion to a great extent.

Making Cycle Construction Easy.

While hubs, hangers, pedals and the like have long been on the market, nothing so well shows the facility with which bicycles may be now made up than the frame offerings of the parts makers. Take John R. Keim, of Buffalo, as an example. Not only does he make and carry all of the other components, but he offers frames practically as any one may call for them—that is to say, frame sets ready to be made up, frames made up and ready for enamelling, or frames enamelled and ready for assembling.

Elastic and Cushioned.

An Austrian has been granted a patent on an elastic tire for cycles, which is thus described: The tire, which is of rubber, is traversed by three channels, so adjusted and formed that the partitions between the channels form a T-shaped ridge, the perpendicular part of which supports the weight just upon it, transferring it to the horizontal part. The innermost channel can also be equipped with a compressed air tube.

FAULTY FINISH

Little or no Excuse for it—What Poor Enameling Suggests and Indicates.

"When it is understood what an infinitesimal difference in cost there is between good enamelling and bad," remarked the ex-maker, "the wonder is that there should be any of the latter done.

"When it comes to a choice between brush work and dipping," he continued, "I can readily understand why the latter should be preferred on the score of cost, especially where a very large number of machines are turned out in the course of a season. In fact, in such cases it would be very foolish for the maker to adopt the brushing plan.

"By so doing he would increase the ratio of cost enormously, without getting any material improvement in the quality of work turned out. For enamelling in colors, striping, etc., brush work must be resorted to as a rule, but for plain work it is little short of folly to do anything but dip. There is plenty of dip work which can scarcely be distinguished from brush work; and what more could be desired?

"Of course, even when the frames and forks are dipped the work must be well done. Enamelling is not a thing to be lightly approached, and whatever excuse there may have been in former years for ignorance of this fact none exists now. It is self-evident that such makers as are left in the game have had plenty of experience, know good enamelling from bad, and understand how to go about getting the former.

"This is why sloppy and skimpy work is so inexcusable—almost incomprehensible, in fact. The concerns that are guilty of it must know better, and they have not even the poor excuse of effecting any material saving by turning out poorly finished machines.

"The saving in time between hurrying a dipped frame through and taking sufficient time to do the work properly is almost negligible. A skilful workman can turn out parts in good condition almost as rapidly as a 'dub' can botch them. Furthermore, it takes just as much enamel and just as much fuel to do one kind of work as the other. About the only place where a gain could be made is in the rubbing down between the coats, and possibly in reducing the number of coats applied.

"Another saving could be effected, of course, by employing cheap workmen. A good workman without experience would fall down just about as completely as a poor one with experience; but there would be the difference that the former would learn to turn out good work, while the latter would continue in the same old rut.

"I am convinced, therefore, that where bad enamelling is seen it is the result of employing cheap workmen and of a laxity in inspection. The sole thought of such men is to turn out a large quantity of work, and, knowing that almost anything is good enough to pass inspection, they make no effort to do good work."

CEMENTS AND COMPOUNDING

How the Tire Man Proved the Connection Between Them.

"Tell me how I can keep my rear tire from coming loose from the rim," said a rider to a well known tire man. "Since I have been using a coaster-brake it has been harder than ever to keep it cemented properly.

"I long ago gave up the hope of getting a liquid cement that would hold for any great length of time," he went on. "It was certain to lose its life, and some day I would find myself with a tire held on only by the pressure of the air contained in it. One or two walks entailed by this dying of the cement—for I did not want to take the risk of ruining the tire—made me anxious for something better.

"So I turned to hard cement again, knowing that it had held pretty well when we used steel instead of wood rims. It is a nasty thing to put on, and some of the cement is pretty certain to get on the rim and tire; but these drawbacks were more than counterbalanced by its greater adhesiveness. In this way I was able to get pretty good satisfaction, until, as I said, I began to use a coaster-brake. Then came trouble, and lots of it.

"I don't know whether I use my brake more than other people, or whether it is possessed of greater braking power than other kinds. Certain it is, however, that I use it whenever I desire to check the speed of my machine, and when occasion arises I put it on hard, so hard that the machine stops in short order.

"At first this used to put the rear wheel out of true, but I overcame that trouble by having heavier spokes put in and having them strung with a pretty high tension. I suppose that threw the strain on the tire, and it would work loose in places, particularly around the valve. This has happened so often that I have become a little nervous and fear to put my brake on hard or suddenly. What I want to know is what will keep that tire tight."

"That is easy enough," replied the tire man. "Use shellac. That is what we do, and recommend all users of our tires to do. The white shellac is the best; it costs more than other kinds, but it pays in the end. I'll guarantee that if your tire is put on with that it won't come loose."

"No, I don't believe I care for shellac," retorted the rider. "I want my tire to remain cemented to the rim, but there are occasions when it is highly important that it can be taken off. That is where the shellac would appear in an unpleasant light. I have seen shellacked tires taken off the rim, and usually they left part of the tire on the rim. No, none of that for me."

"All the fault of the tire if it did that," asserted the man learned in tires and their ways. "If the compounding is not done properly all sorts of troubles will arise, including the one you speak of. But I will guarantee that our tire can be taken off the rim without injuring it in the least, no matter how well cemented it may be."

"All right, I'll come around some time and have you try to fasten my tire." And with this threat the rider continued on his way.

Must Face the Consequences.

If a bill introduced in the Connecticut Legislature last week becomes a law the practice of hurrying away after a roadside collision without ascertaining the extent of the damage done will be severely discouraged.

The bill, which was referred to the Committee on Roads, Rivers and Bridges, amends

MORGAN & WRIGHT TIRES

ARE GOOD TIRES

DEALERS AND REPAIR-
MEN WILL FIND MANY
NEW THINGS IN OUR
CATALOGUE AND PRICE
LIST

MORGAN & WRIGHT
CHICAGO

NEW YORK BRANCH: 214-216 WEST 47th ST.
BOS. ON BRANCH: 80 BATTERY MARCH ST.
Near Fort Hill Square.

Chapter XCI of the public acts of 1897 to read as follows:

"Any person, who while riding or propelling a bicycle, or drawing or directing any vehicle of any character upon a public street or highway, shall run against, upon or over any person upon such highway or street, or the property of any person, in his personal possession or use, in such a manner as might do an injury or cause damage to such person or property, and shall not stop to ascertain the extent of such injury and to render such assistance as may be needed, or shall refuse to give his name and residence, or shall give a false name and residence, shall be guilty of a misdemeanor, and on being convicted thereof shall be punished by a fine of not over \$500 or by imprisonment for six months, or both."

The fact that the bill applies to all vehicles, although citing bicycles first, is significant.

CYCLE'S NEW CENTURY

Is Another Change Impending or has Finality Been Reached?

Hale and hearty men of the present day can well remember the birth of cycling—the appearance of the boneshaker, its temporary vogue and speedy death; the debut of its successor, the ordinary, or high wheel, its steady growth in popularity and its final retirement in favor of the lowly but eminently practical safety; and not a few of them are already asking, what next?

Is the present bicycle destined to make way for some machine which will mark the next step in evolution—whether it be the motorcycle, the automobile or even the flying machine? Will the man-driven machine be ultimately forced to the wall by the greater fascination of the one having its power self-contained? Few will assent to this view of the matter, having in view the manifold superiority of the former in the matter of price, convenience, cleanliness, quietness, etc.

No, the bicycle holds too important a place in modern economy to be thus summarily dismissed. Even the middle of the present century is too short a time for it to have a termination put to its career, as is done by one writer who holds forth thus regarding the matter:

At the end of a cycle of years there is a certain fitness in considering the question of another cycle—the bicycle. From the horrible bone-shaking instrument of torture bestridden by our forefathers to the noiseless, gliding, pneumatic-tired cycle on which the shopman races from his suburb to his city toil there is as infinite a difference as that which raises Pilatus above an ant heap.

The modern bicycle is a perfect, an exquisite piece of mechanism. It not only makes the suburb a part of the city, but it brings the distant country, even the seashore, near to the urban dweller. The general improvement in our health is due perhaps in no small degree to the inducement to take vigorous exercise provided for city dwellers by this invention.

But, it appears, the last year of the century has not been a good one for the bicycle trade, and this is taken to indicate the decreasing popularity of the universal wheel. We are told in some quarters that our children will regard these beautiful bicycles in the approaching century in the same manner as we now regard our forefathers' bone-shakers.

Winging the heavens in flying machines, or skimming round the globe on motor cars, they will smile pitifully upon the toiling, back-bowed bicyclist, and express polite wonderment as to our easily satisfied ambition.

We venture to prophesy, nevertheless, that the bicycle will not vanish from the earth till the new century is well into middle age.

Almost Equal to a Motor.

It has always been a favorite theory with inventors that the storage of surplus energy, to be utilized when needed, is feasible, and many efforts have been made to work out the problem. A bicycle embodying this idea was exhibited at one of the English shows last fall, and referred to in a recent issue of the *Bicycling World*, but it was too "freaky" to be regarded with seriousness.

Now come two Germans, residents of Kiel, who have patented a device for attaining the desired end. The device is thus described:

The rider on traversing sloping ground or ground which may seem suitable to him for the accumulation of energy puts an air pump in operation which has been attached to a suitable part of the bicycle, and which can be driven by a rotation organ or part of the machine. The result is a slackening of speed, as by the use of a brake.

The quantity of air thus pumped up is conveyed to some suitable receptacle, as, for instance, the hollow frame of the cycle or to another air chamber attached to the latter. As soon as the receptacle is filled the pump ceases automatically to work, or is stopped by a lever gearing.

When the rider wishes to make use of the stored energy he puts a revolving air motor in motion which acts by means of friction on the rear wheel, and aids the rider in his effort of locomotion when such help is required.

Alcohol Gets a Boost.

In consequence of the issuance by the French Minister of Finance of a new set of regulations relating to the use of denatured alcohol, one great obstacle in the way of making extensive use of it should it prove as good or better than gasoline has been removed. It now only remains to be seen whether the experiments with alcohol still being conducted result in its favor as a motive power for motorcycles and other self-propelled vehicles.

The action of the French Minister was taken chiefly as a result of the efforts which have been made to substitute alcohol for gasoline for the purpose mentioned. Under the new regulations the amount of the "octroi," or local taxes, is reduced to three francs per hectolitre—the hectolitre is, in round figures, 26½ gallons—or less than three cents per gallon. This reduction enables the alcohol to compete easily with gasoline, especially as the former is much more effective, and gives, at the same time, the agriculturists a chance to make money out of the motor trade.

The alcohol will have to undergo a denaturation to make it useless for other purposes; this process must, at the same time, not interfere with the quality and add substances detrimental to the metal it comes in contact with.

"Motorcycles and How to Manage Them." The name explains the nature of the book. Price 75 cents. For sale by **The Goodman Company.** • • •

The Retail Record.**CHANGES.**

Portland, Conn.—Richard Wall, will discontinue.

Paris, Ill.—Logan & Sheppard, sold out.

Burton, O.—Parnall Bros., sold out.

Ashland, Ore.—B. F. Reeser, sold out.

Alliance, O.—Wright & Pennock, sold out.

Wray, Col.—George B. Vaughn has withdrawn from Vaughn & Co.

Little Rock, Ark.—H. D. Orr succeeds W. S. Holt.

Rockport, Ind.—S. W. Stocking, sr., succeeds S. W. Stocking & Son.

Vincennes, Ind.—Emisen & Nicholson succeed John W. Emisen & Co.

Danville, Ill.—J. W. Osborn succeeds Bushness & Osborn.

Dixon, Ill.—F. C. Oller succeeds Robert H. Howell.

Farmington, Ill.—F. E. Crane & Co. succeed Crane & Connell.

Ireton, Ia.—Heeren & Bennet succeed O. J. Fisher.

North Baltimore, O.—W. J. Adams succeeds Adams & Rogers.

Champaign, Ill.—Percival & Moorehead succeed O. L. Percival.

Malvern, Ia.—Wortz & Bushnell succeed Taibott, Bushnell & Wortz.

Horton, Kan.—Boyd & Son succeed Gardner Bros.

New Madison, O.—G. W. Wiley succeeds Wiley Bros.

Buckley, Ill.—E. M. Boice succeeds Riggs & Boice.

Roland, Ia.—M. C. Grove succeeds M. C. Grove & Son.

NEW STORES.

Santa Ana, Cal.—J. Lester Hayne.

Boston, Mass.—A. T. Fuller, 243 Columbus avenue.

Montpelier, Vt.—J. B. Partlow, reopening. Charlotte, N. C.—W. D. Hay & Co., West Trade street.

EMBARRASSMENT.

Morrisville, N. J.—Lewis Consolloy, Mill street, fixtures sold by constable for unpaid rent.

Recent Incorporations.

Washington, D. C.—The Motor Vehicle & Cycle Co., with \$100,000 capital, to take over the business of the Orient Cycle Co., and to do a stabling, repairing and agency business. Temporary offices and salesroom, 727 Fourteenth street; Frank P. Libbey, manager.

Pittsburg, Pa.—The Theo. F. Bentel Co., with \$100,000 capital, \$25,000 paid in, to manufacture bicycles and automobiles.

Merkel Succeeds Layton Park.

The Merkel Mfg. Co., Milwaukee, Wis., has purchased the plant and business of the bankrupt Layton Park Mfg. Co., of the same place, and will continue the manufacture of the same goods, parts and fittings. The Layton Park Co. was closely interwoven with the F. W. Huennekens Sons Co., of Milwaukee, and both went down in the same crash.

Ducks for Motorcycles.

Wise in their generation, the Duck Brake Co., of this city, is making the most of its roller brake for use on motorcycles, and that it has claims for the purpose is not to be denied. E. Hafelfinger, whose motor bicycle created such a stir at the Cycle Show, is one of those who uses it and who speaks of it in terms of praise. Aside from motorcycles, the brake seems to have made substantial headway during the year. The Duck people report sales of upward of 20,000 brakes.

Kehew Becomes a Convert.

George F. Kehew, head of the well known jobbing house, the United Supply Co., Boston, was one of the motorcycle converts of the New York show. Previous to that occasion he was a skeptic, but a couple of rides on the Thomas motor bicycle "brought him around," and he is now not only personally enthusiastic, but full of faith in the future of the machine. In fact, before he left the show he had secured the Thomas representation.

Germans Want Russian Trade.

It is reported that in order to counteract the ever-growing import of American cycles, machinery and other appliances into Russia, German manufacturers intend to hold exhibitions all over Russia, and to thus show the traders and buyers the advantage of buying such goods from German makers.

First to Catalogue Motorcycle Tires.

The Fisk Rubber Co. are up betimes. Their 1901 catalogue lists motorcycle tires among the others—the first catalogue, it is believed, of which this is true. The catalogue itself is not large, but it is terse and compact, and sufficiently illustrated to catch the eye.

Regarding Vulcanization.

The Hartford Rubber Works have just issued a pamphlet bearing on the vulcanization of tires. It is really a pamphlet of detailed instruction on the subject, and as such there are few dealers or repairmen whom it should not interest.

Shift of Milwaukee Trade Scenery.

The Milwaukee Cycle Supply Co. has succeeded to the effects of the bankrupt F. W. Huennekens Sons Co., and will add bicycles to its line of jobbing goods. F. J. Huennekens, secretary of the defunct concern, is manager of its successor.

High Grade TIRES at Low Prices.

Tip Top Tires, per pair,	\$2.25
New Brunswick Meteor,	
1 5-8 only, per pair,	3.00
X Star X Tires, M'fd by	
Goodyear, per pair,	2.35
Lexington Tires, 28 x 1 1-2 and	
1 5-8, M'fd by Hartford	
Rubber Works, per pair,	3.00
Diamond XX Tires, per pair,	2.35
Leader Hubs, per pair,	1.25
Brilliant Gas Lamps, each,	1.00
Genii Oil Lamp, each,	.55
Fine Inner Tubes, each,	.50

We have in stock all makes of TIRES, such as Hartfords, Goodrich, Morgan & Wright, Palmer and G & J. Also a full line of Sundries and Tools. Send for our 1901 Illustrated Catalogue.

BROADWAY BICYCLE & SUNDRY MFG. CO.,
7 and 9 Warren St., near Broadway, New York.

ENGLISH INVENTIVENESS

How it has Grown and What it Costs—
Cycling Patents Diminish.

That inventors have flourished like the green bay tree under the benign ministrations of the United States Patent Office is scarcely surprising. The proverbial fecundity of the American worker in the field of mechanics, added to the fact that his pathway is made an easy one when he appears in the role of patentee, affords ample explanation of this.

In other countries, however, the inventor is not so well favored. More obstacles are placed in the way of the granting of his application, and he is compelled to pay much more liberally for the protection he receives from his government than he does here. As the charges are graduated, however, and bear most heavily on the longest lived and, presumably, the most lucrative, patents, equity rules to a very great extent.

Just at present the falling off in the number of British patents is causing some concern.

If the number of patents applied for during the year is any criterion of the commercial progress of the nation, last year's record of 23,909 applications is not encouraging, says a London contemporary.

It is the lowest mark reached since 1891. But there is the consolation that 1897 produced 30,936 applications, the biggest number on record. Since then people have been too busy, perhaps, to invent.

Certainly the Chancellor of the Exchequer will grieve over the decreased record of inventiveness, for he gets £1 from every applicant for a patent—£23,909 last year—and his interest in patents grows with the life of the patent. The first £1 which the applicant pays protects his patent for nine months. Then drawings and specifications have to be handed in, with £3 for stamp duty.

But the Chancellor of the Exchequer's interest continues. For the first four years the patent, having been granted, costs £4. Before the expiration of the fourth year the patentee has to pay in another £5, and before the end of the thirteenth year—patents run for fourteen—a still further sum of £14, with graduated payments in between. Altogether the Chancellor reaps £99 from a healthy fourteen-year-old patent, so it is easy to see what he might reckon as lost, comparing last year with 1897, if all applications for patents lived a healthy remunerative life of fourteen years.

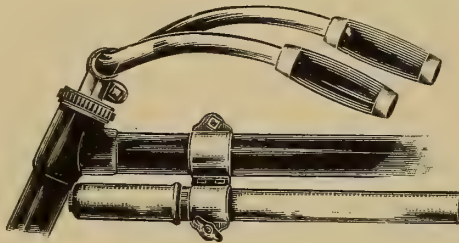
But of the 23,909 applications made last year probably half will be abandoned before next Christmas. Three-fourths of the remain^{ing}, having become patents, will inevitably collapse during 1902, and by 1914 possibly only a meagre remnant of 5 per cent will remain.

But the question is—in view of last year's decrease—Is British inventiveness on the wane?

Bridgeport's New Pump.

On the "other side," that is to say, in Great Britain, telescopic pumps clipped to the frame of the bicycle are quite the rule. Pocket pumps, such as are known here, are the exception. Most of the English pumps are unnecessarily long and heavy, and the wonder is that the English riders put up with them.

On this side a telescopic pump of reasonable length and weight, designed to be carried in a clip on the frame is being turned



out this year for the first time by the Bridgeport Brass Co., whose sales office is at No. 19 Murray Street, this city.

The pump and clip are shown by the accompanying illustration. Together they weigh but six ounces. When not in use the rubber tube is stowed inside the stock of the pump, and is furnished with either American or English nipples. The pump is handy and powerful, and lists, clip included, at 65 cents, the price to jobber and dealer being of the sort that should induce orders, while the novelty of the pump itself should quickly appeal to dealers who know how to use such a novelty to advantage.

Ghiz's Progressiveness.

The Broadway Bicycle and Sundry Co., formerly of No. 413 Broadway, have removed to Nos. 7 and 9 Warren Street, New York, and are prepared to give prompt attention to orders for anything in their line, which is sufficiently comprehensive, embracing everything required by bicycle dealers. Mr. Ghiz, the proprietor, is one of that class of men brought to the front by the changed conditions of the business, and his methods have already received the stamp of success. From complete bicycles down to the smallest part or sundry, the concern's stock is complete, deliveries are prompt and prices are right. The new location, within easy reach of the ferries, makes the store accessible from all downtown points.

Travelers and Talking Points.

As a cycle traveller remarked on starting out a few days ago, talking points are few, and each one must be made the most of. Many features which were at one time valuable have lost much of their force, but in the absence of newer ones they are still made to do service.

One Hour :
40 Miles, 330 Yds.
Stinson,
Orient Leader.

Remember that, when you write home the order.

And the new Orient Racer will surely perform all that it promises.

Here is the 1901 line of Orients—now ready for February assignment and immediate delivery.

ORIENT LEADER
TAILORED ORIENT
ORIENT MILAYINIT
ORIENT CHAINLESS
ORIENT MOTOR BICYCLE

All equipped with Coaster Brakes and Cushion Frames at request and a slight additional charge.

WALTHAM MFC. CO.,
Waltham, Mass.

Open Confession From England.

Just 100 years ago Thomas Jefferson wrote that "We are an agricultural people, poor in money and owing great debts."

No greater change could possibly be imagined than has taken place since the great Virginian penned these words. Without having retired from the agricultural field the country has become one largely devoted to manufactures, and in pursuance of its manifold destiny is reaching out for the trade of the world. No one can be so blind as not to see this, and that it is patent to foreign observers, as well as Americans, is plain from the admission of the "London Times," which says:

"It is useless to disguise the fact that Great Britain is being outdistanced. The competition does not come from the glut caused by miscalculation as to the home demand. Our own steelmakers know better, and are alarmed. The threatened competition in markets hitherto our own comes from efficiency in production such as never before has been seen."

Even more pointed is this quotation from the columns of the German paper the "Hamburger Fremdenblatt," which shows the general European feeling as follows:

"Competent experts, well informed as to the industrial and export conditions which prevail in the United States, have established the following facts: The steel manufactures of the United States, which two decades ago were in their infancy, to-day control the markets of the world, dictate directly or indirectly the price of iron and steel in all countries, and are able to export profitably even to England. American tools stand above competition in nearly the whole world. Also in sewing machines, bicycles and agricultural implements of every kind the United States has begun to drive England and Germany from the world's markets.

"Incidentally it may be remarked that the typewriter with which this article is being written, as well as thousands—nay, hundreds of thousands—of others that are in use throughout the world, was made in America; that it stands on an American table, in an office furnished with American desks, bookcases and chairs, which cannot be made in Europe of equal quality, so practical and convenient, for a similar price.

"An American syndicate is now planning, and has even taken initial steps in a scheme to take in hand the whole sleeping car ser-

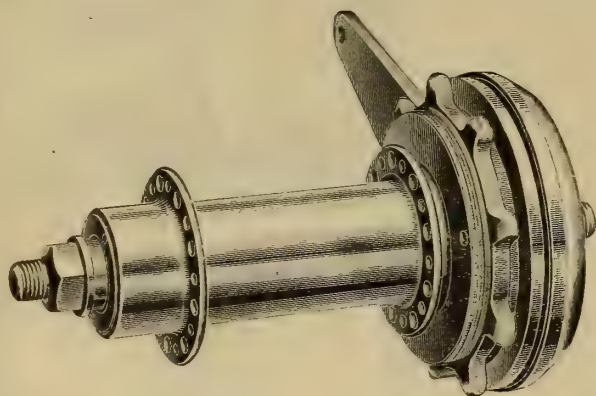
vice of Europe, to improve and make it cheaper than is now possible.

"But enough of examples. Every one who understands the existing conditions and has followed these conclusions, drawn from the best sources and based upon thorough knowledge of facts, will agree that the threatened danger from America is neither exaggerated nor painted too darkly, but is, in fact, real and serious."

Show had Good Effect.

Just as Philadelphia was one of the cities in which the cycling tide rose highest, so its tradesmen have felt with a keenness altogether unusual the depression of the past few years. A more cheerful view of the coming season is entertained, however, partly as a result of the show held there last week.

Says a local daily: "Manufacturers of and dealers in cycles are very much encouraged by the success of the show at the 3d Regiment Armory. They look forward more confidently than ever to a good selling season in the trade. Some of them say that the show has proven a renewed public interest in the wheel. Not only has the attendance of spectators been excellent, but a considerable number of sales have been made, and, what is more reassuring to the makers, many new agencies have been placed."



THE "E. Z." COASTER BRAKE NO. 2.

Manufactured by

REED & CURTIS MACHINE SCREW CO.,
WORCESTER, MASS.

TO WHOM IT MAY CONCERN:

This is to certify that we have taken a license from the original inventor and patentee, Edward E. Ziegler, of Philadelphia, to manufacture the Coaster Brake shown herewith. We are the only ones authorized to make and sell this Coaster Brake in the United States, and all other parties making and offering such an article for sale are infringing our rights.

Yours truly,

REED & CURTIS MACHINE SCREW CO.

We would be pleased to have you catalogue this Brake, and can take care of you to your satisfaction.

WRITE FOR CATALOGUE "C."

TALKING

OF

TIRES,

If you would be



, it would be a

mighty good idea to get our figures, they are money-savers.

INTERNATIONAL A & V TIRE COMPANY,

346 BROADWAY, NEW YORK.

HEAVY AND DEAD

Are British Popular-priced Machines, Declares a Competent Authority.

Owing to the methods of manufacture in universal use in this country, nothing that is worth imitating escapes being imitated.

The choicest products of the brain of the smart designer are at the mercy of the manufacturer of cheap machines. The latter can turn out a copy of the best patterns, and only the closest scrutiny will reveal the difference. Of course, designers of cheap bicycles do not always want to copy higher-priced machines, and for this and other reasons absolute uniformity never prevails.

In England, however, there is still a broad line of demarcation between the different grades. Owing largely to the greater prevalence of hand work—or, rather, to the absence in many factories of the system of automatic duplication of parts on an immense scale—the low, the medium and the high grades are still recognizable at a glance. The surprising part of the matter is, however, that the former, although having the largest sale, have undergone scarcely any advancement.

This fact is brought out by the Irish Cyclist. Popular machines, it says, are being made heavier than ever, and deader than ever, we do believe. The makers are forced to do so, as free wheeling has made it necessary to consider the new and dangerous strains set up; and nowadays the maker with any kind of a name cannot afford to run the risk of damages at law over a machine on which he makes but very little profit at the best of times.

We think there are thousands of people to-day who are riding worse machines than they would probably have been riding six years ago! And with very little economy, too. Now, that looks very poor progress. But it is the price these people pay for their meanness and ignorance. They do not know what a good cycle is. If they took to cycling, say, in 1895, they would most probably have bought a second-hand machine of one of the leading makes, because the "popular" machines were not so well known then.

Has too much been sacrificed for the free wheel? We are afraid so, in many cases. It was our lot the other day to have a spin on a free wheel machine which had been sold complete to the purchaser for about £10. It was unmistakably a popular grade cycle and fitted with second-grade tires.

Turned out by a little known firm, it represented their best selling line, and we could believe that thousands and thousands of similar machines by other mediocre makers found purchasers last year. A painfully common looking cycle it was, even to the point of loudness, when one mentally compared its vulgar lines with those of the dainty first grades of the premier firms.

The plebeian look we tried to forget,

though the clumsy rubber pedals, the awkward wide tread and the other little signs of hurried vulgarity in the design obtruded forcibly. The plating was chippy and tawdry, and annoyed one as the seeing of an actor who makes up badly. And added to all this was the doleful fact that the machine even as a roadster weighed more than the medium grade roadsters which could be bought six years ago. This was because the cycle was a specially built free wheeler, we suppose.

The Story of a Horse Sale.

According to a story published in the New York papers, A. Kennedy-Child, once secretary of the National Cycle Board of Trade, and a considerable figure in the business, is still in touch with ex-officers of that body, but not in exactly the same old way.

As the story goes, Kennedy appeared at the recent sale of the noted stallion Hamburg with a check for \$65,000 in his clothes. The check, it is alleged, was signed by R. Lindsay Coleman, supposedly acting for Arthur Featherstone, who is now in Europe, and who owns a large stable of high class horses. Coleman is not a factor on the turf in any manner. Hence the supposition that Arthur Featherstone was the man behind the signature on the check.

Child, it is said, conferred with Madden, who bid in the horse, before the sale began, and as a result, when the horse was led up for sale, Child looked on but made no offer. The reason for this was given out subsequently that Madden had assured Child that his offer of \$65,000 would be useless, as he would not stop at \$100,000 to secure Hamburg. This statement caused Child to hang fire with his \$65,000 offer. It also saved W. C. Whitney, who bought the horse through Madden, \$5,000 or \$6,000.

Levers on This Chainless.

From the rather vague description obtainable of the bicycle which the Wadman Cycle Co., of Utica, N. Y., the formation of which was noted by the "Bicycling World" several weeks ago, is bringing out, it appears that it is a chainless-worked by levers instead of cranks.

One of the main points urged in its favor is simplicity of construction and consequent ease of repair in case of a breakage. Instead of four, as on the pattern of chainless bicycles now in use, there are but two gear wheels in this mechanism. These will not be entirely encased, but will have merely a top dustcap, which, it has been found, is sufficient. There is an up-and-down, rather than a circular crank movement, the pedals describing only one-third of an arc.

Bevin Up-to-dateness.

Evidence that the Bevin Bros. Mfg. Co. are alive to the spirit of the times is shown by one of their most recent productions—a bicycle bell in honor of the Pan-American Exposition; it is ornamented appropriate to the occasion.

Of the several \$25 bicycles in evidence [at the cycle show] none could hold a candle to the Hendee Mfg. Co.'s Indian. Better value for the money has not been offered for many a day. The wheel is not only well made, of unquestionable material, but is well equipped and superbly finished, and a year's guarantee "does the rest." The Indian puts not a few of the higher priced machines to blush.—The Bicycling World, Jan. 24.

That
ought to be
enough to
cause every
wide-awake
agent to
write us.



\$25. \$30. \$35.

KEATING

World's Lightest
World's Strongest
World's Speediest

BICYCLES

THE FAVORITE MODEL 90

With or Without the Curve.

Equipped with

The Keating Noiseless Double
Roller Chain.

THE MOTOR BICYCLE THAT
IS A MOTOR BICYCLE.

WEIGHT, 75 lbs.

We want good agents. Write for
prices on above and our
cheaper grades.

Keating Wheel and Automobile Co.,

MIDDLETOWN, CONN.

Last Week's Exports.

For the week ending January 29 England, Denmark and British Africa were the largest buyers of cycle stuff, the record in detail being as follows:

Antwerp—6 cases bicycle material, \$155.
Amsterdam—6 cases bicycle material, \$230.
Azores—1 case bicycle material, \$13.
Abo—4 cases bicycles, \$390.
Bremen—1 case bicycles, \$30; 5 cases bicycle material, \$225.
British Guiana—3 cases bicycles and material, \$228.
British Possessions in Africa—53 cases bicycles and parts, \$3,008.
British West Indies—16 cases bicycle material, \$434.
Cuba—7 cases bicycle material, \$314.
China—6 cases bicycles and material, \$890.
Copenhagen—4 cases bicycles, \$80; 79 cases bicycle material, \$4,486.
Cairo—8 cases bicycles, \$1,042.
Florence—5 cases bicycles, \$139.
Genoa—26 cases bicycle material, \$812.
Glasgow—1 case bicycle material, \$50.
Hayti—72 cases bicycle material, \$105.
Havre—38 cases bicycles, \$959; 89 cases bicycle material, \$1,479.
Hamburg—23 cases bicycles, \$756; 33 cases bicycle material, \$1,005.
Hong-Kong—2 cases bicycles, \$300.
Japan—1 case bicycles, \$15.
Liverpool—19 cases bicycles, \$565; 4 cases bicycle material, \$250.
London—38 cases bicycles, \$775; 57 cases bicycle material, \$2,533.
Malta—4 cases bicycles, \$203.
Milan—14 cases bicycle material, \$658.
Nuremberg—2 cases bicycle material, \$50.
Philippines—17 cases bicycles and material, \$484.
Rotterdam—50 cases bicycle material, \$2,461.
Riga—1 case bicycles, \$64.
Southampton—3 cases bicycles, \$172; 15 cases bicycle material, \$425.
Stockholm—7 cases bicycle material, \$176.
St. Petersburg—116 cases bicycles and material, \$2,657.
Trieste—1 case bicycles, \$30.
Venezuela—2 cases bicycles, \$40.

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

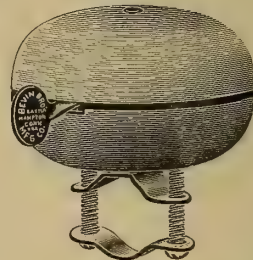
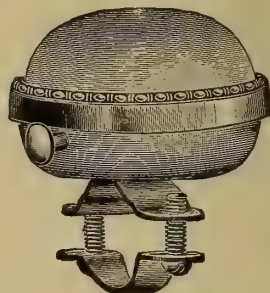
If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

OUR SHOW-

ing of bells, lamp brackets, toe clips,
trouser guards and the like

IS SO ATTRACTIVE

in price, quality, appearance and variety that there are few in the trade whom we have not pleased or who we cannot please if given the opportunity.



Have YOU obtained catalog and quotations?

BEVIN BROS. MFG. CO., EAST HAMPTON, CONN.

(Business founded 1832.)

If
You Are
Interested
In
Automobiles

**The MOTOR
WORLD** Dedicated to the
Automobile
& Kindred
Interests

WILL SURELY
INTEREST YOU.

It is published for the information
of the average mortal; no dic-
tionary of mechanical
terms is needed to
understand it.

PUBLISHED EVERY THURSDAY
AT 123-125 TRIBUNE BUILDING,
NEW YORK CITY.

\$2.00 PER YEAR.
10 CENTS PER COPY.

SAMPLE COPY ON APPLICATION.

Opens Their Eyes.

If any doubt exists as to the superiority in the matter of pace of a coaster-brake bicycle it will be put at rest by watching two riders, one with a fixed gear and the other with a coaster-brake machine.

Up hill and on the level they will ride together, the assumption being that they are pedalling along at an easy gait. When a down grade is encountered, however, the second rider will draw away at once, increasing his lead if the hill is at all long or steep. Should the fixed gear rider coast, he will not lose so much ground; but even then he will rarely let the machine attain its full speed.

So certain is this drawing away of the machine fitted with a coaster-brake to happen that it impresses the rider of the other machine almost at once. He finds that to regain his lost ground he has either to pedal faster and harder or have his companion slacken his pace until a reunion is effected. The same thing will happen again, however, just as soon as the next down grade is reached.

It is probable that more converts to the coaster-brake are made in this way than could be accomplished by anything short of a thorough trial of the device.

As Used in Africa.

The Dwyer Folding Bicycle Co., of Danbury, Conn., are said to be endeavoring to secure Worcester (Mass.) capital with which to extend their business of manufacturing a folding bicycle. This machine weighs 26 pounds, and folds in like a book at about the middle of the frame, taking up a little over half the full space.

A sample machine, such as the British Government is using to equip a part of its force of fighters in South Africa, is being shown to Worcester people.

Antedated Maybach's Patent.

An English delver in Patent Office records has brought to light G. Wilkinson's patent, No. 10,051, of 1890, for float feed carbureters, and a number of authorities express the opinion that it is a complete anticipation of Maybach's. Unfortunately, however, Wilkinson's patent expired in 1894, much to the grief of those Englishmen who are being asked to pay royalties on the Maybach.

Decline of the Drummer.

"One great difference which we notice in the business," a Bangor (Me.) dealer is quoted as saying, "is the remarkable falling off in the number of travelling men which has occurred during the last year. Where formerly there were five bicycle men in town there is at present one."

Has a "Circle" Frame.

Fond Du Lac (Wis.) citizens have under consideration a proposition looking to the forming of a stock company for the manufacture of a bicycle which has for its claim of superiority a circle frame, and which was recently patented by C. W. H. Smithers, of that city

ELFIN
BICYCLES

The General Construction

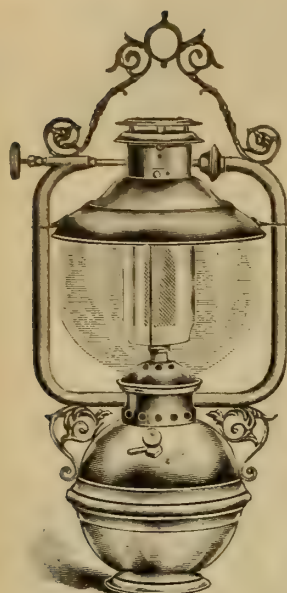
—of the Elfin Bicycle
is superior to that of most
Bicycles, whether adults or
juvenile wheels—and second
to that of none.

The Reversible Crank
Bracket, Elfin, allows for a
longer leg-reach than is pos-
sible for any other juvenile—
increases the life and use-
fulness of the Bicycle.

The Chain is adjusted
from the Crank Bracket—
and not from the rear wheel
—easiest for the child to
adjust — doesn't get out of
order.

Juveniles, as a lot, are
pretty unsatisfactory bicycles
—an unsatisfied Elfin cus-
tomer has never yet been
heard of.

Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.



Outdoor.

THE NULITE

750 CANDLE POWER

ARC ILLUMINATORS

Produce the finest artificial light in the world.
SUPERIOR TO ELECTRICITY OR GAS
CHEAPER THAN KEROSENE OIL

A 20th Century Revolution in the Art of Lighting.

They darkness into daylight turn,
And air instead of money burn.

No Smoke. No Odor. No Noise. Absolutely Safe.
They are portable. Hang them anywhere.

WE ALSO MANUFACTURE

TABLE LAMPS, PENDANTS, WALL LAMPS,
CHANDELIERS, STREET LAMPS, ETC.

The BEST and only successful

Incandescent Vapor Gas Lamps

made. They sell at sight. Nothing like them.

A SNAP FOR BICYCLE DEALERS.

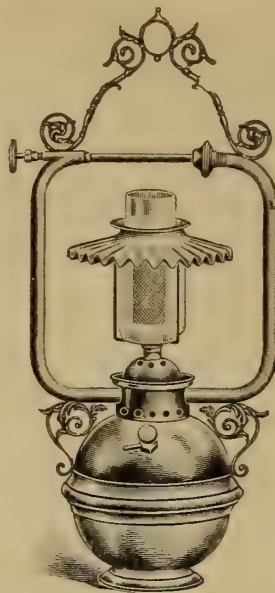
Agents wanted everywhere.

Write for catalogue and prices.

CHICAGO SOLAR LIGHT CO.,

56 FIFTH AVE.,

CHICAGO, ILL.



Indoor.



HERE IT IS!

The Melvin
Automatic
Coaster
and Brake.

Thoroughly reliable, having been tested for two seasons.
Write for catalogue and prices.

F. M. SMITH & BRO., - St. Paul, Minn.

GASOLENE MOTORS

FOR

Bicycles, Vehicles and Launches

AIR COOLED AND WATER JACKETED

ACCESSORIES AND PARTS

ALSO

Complete Sets of Castings and Working Drawings

LOWELL MODEL CO.

Box 292 LOWELL, MASS.

All American wheelmen who desire to keep themselves posted upon matters concerning the cycle in Europe, its trade, mechanics, and sport, should subscribe to

THE CYCLIST

AND BICYCLING AND TRICYCLING TRADES REVIEW.

The only recognized authority of English trade and manufacture. Sent post free to any part of America for one year, \$3.25. American manufacturers having novelties in machines or sun dries to introduce should advertise in

THE CYCLIST.

Terms on application to

ILIFFE SONS & STURMEY, Ltd.,
19 Hertford Street, Coventry, England.

Members of the American Trade visiting England are invited to call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street, Ludgate Circus, London, E. C.

HIGH GRADE

wheels must have the
best equipments.

There is nothing that gives more value for
the money than the use of the

MORSE TWIN ROLLER CHAIN



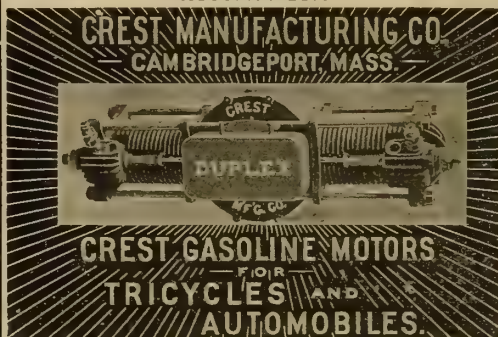
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The only chain having Frictionless
Rocker Joints. Insist on having the
Morse Twin Roller. Fits regular
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WE SELL ALL THE PARTS TO MANUFACTURE
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THREE, FOUR AND FIVE HORSE-POWER MOTORS.
CREST INDESTRUCTIBLE SPARKING PLUGS,
Guaranteed. Price \$2.00.

20th Century OIL and GAS
Bicycle, Driving and Automobile
HEAD-LIGHTS.

For sale by all jobbers and dealers.
20th Century brand of Carbide.

WANTS AND FOR SALE.

15 cents per line of seven words.

WANTED.—Cyclometers, lamps, bells, tool bags, foot pumps, trouser guards and other sundries and equipment. Large lots preferred. Spot cash. MEAD CYCLE CO., Chicago.

REMOVAL NOTICE.

Broadway Bicycle & Sundry Mfg. Co.

Late of 413 Broadway, have removed to

7 and 9 Warren St., near Broadway,
NEW YORK.

Our 1901 catalogue will be ready shortly. Send us your business card and secure a copy.

OUR
CRANK
HANGER
DOES
IT.

The
Racyle

DOES
WHAT?
MAKES
IT RUN
EASY.

L. R. HALL

Enameling and Nickeling Co.

ENAMELING, NICKEL-PLATING

and VULCANIZING for the trade.

Carriage Tires
Our Specialty.

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BOSTON.

HAND AND FOOT PUMPS,

Oilers, Repair Tools,
Valves, Name-plates, etc.

Spelter Solder

Sheet Brass,
Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

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Factories: Waterbury, Conn.
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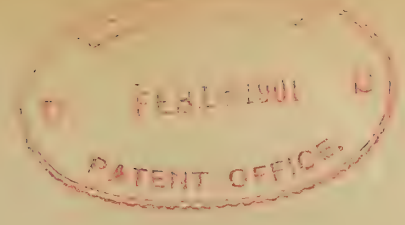
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Use it
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The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., February 14, 1901.

No. 20

RUBBER GOODS'S REPORT

Favorable Statement Submitted at Annual Meeting—Assets Increased, \$3,113,398.

Comparisons of a nature gratifying to its stockholders are to be drawn from the figures contained in the report of the Rubber Goods Mfg. Co. for the fiscal year ending January 31, which was submitted at the annual meeting of the company held on Monday.

The report showed that the net income of the company was \$1,568,247; dividends on preferred stock, \$881,950; dividends on common stock, \$472,233; total dividends, \$1,354,183; balance, \$214,063; earnings reserved, \$1,271,784; surplus, \$1,485,847; surplus compares with last year's report of \$1,014,965; surplus increase, \$470,882.

The general balance sheet of the company as of February 1 shows:

Assets—	1901.	1900.	Increase.
Cash	\$425,746	\$318,247	\$107,499
Accounts receivable ..	45,585	765,590	*720,005
Net earns. prop. ac- quired, less amounts received ..	1,271,784	557,297	714,487
Investments.	25,141,149	22,129,732	3,011,417
Totals	\$26,884,264	\$23,770,866	\$3,113,398
Liabilities—			
P r e f e r r e d stock	\$8,051,400	\$7,621,300	\$430,100
C o m m o n stock	16,941,700	15,134,600	1,807,100
Deposits by companies.	405,317	.....	405,317
Surplus	1,485,847	1,014,966	470,881

Totals\$26,884,264 \$23,770,866 \$3,113,398

*Decrease.

President Charles Stewart Smith in his report says:

"The negotiations and arrangements for extending the business of the company have been satisfactorily completed, and it is confidently believed have strengthened the position of the company. This company is manufacturing many varieties of goods, constantly in growing demand, so that it is not dependent upon any one class of product to maintain its forces active."

The president recommends annual meet-

ings on the second Thursday in April, in order that proper opportunity may be given to complete an audit of the accounts of all the companies.

Shapleigh Sues Syracuse for \$15,000.

Differences of opinion in regard to sales made in 1896 and 1897 have brought about a suit between the Shapleigh Hardware Co., of St. Louis, Mo., and the old Syracuse Cycle Co., of Syracuse, N. Y., and the case is scheduled for trial before the United States Circuit Court, which meets at Albany, N. Y., this week.

The action, which is for breach of contract, with damages claimed in the sum of \$15,000, results from the sale to the plaintiffs of a quantity of bicycles in 1896 and 1897. The orders were large ones, and the agreement of the Syracuse Cycle Co., the plaintiffs allege, was that the price charged should be as low as that given to any concern during the season. The price was not as low as the plaintiffs claim it should have been, and they now seek to recover the difference in the transaction, with interest.

The claim of the Syracuse Cycle Co. is that the hardware concern, acting as its agent, did not carry out its part of the agreement, and left in the hands of the cycle company a large number of bicycles which had to be disposed of at a considerable loss.

The Syracuse Cycle Co. since the transactions involved in this suit has been absorbed. The old concern, however, is the defendant in this action. The case has been on the calendar of the United States Circuit Court before, but has not reached trial, and it is uncertain whether it will be brought to trial at this session.

How the Parts Company will Operate.

Further particulars of the \$5,000,000 Automobile and Cycle Parts Co. state that the several factories will deal directly with their patrons. The main office in Cleveland will serve as a sort of clearing house for the corporation.

The factories will be known as follows: Diamond chain factory, Smith parts factory, Thompson parts factory, Garford saddle factory, Hunt saddle factory and the Cleveland ball and pedal factory.

Walter Wardrop, former editor of the Cycle Age, will be in charge of the company's publicity department.

MARCH-DAVIS'S DOWNFALL

Operations on too Slender Margins Cause a Long Predicted Failure.

The first failure of the year in the cycle trade came about on Friday last, when the March-Davis Cycle Co., of Chicago, was forced into the hands of a receiver. F. S. Hebard was the man appointed by the Court to take charge of the assets of the company, and for faithful performance of his trust was required to give bonds in the sum of \$40,000.

This action was taken after a petition had been filed in the United States District Court asking that the concern be adjudged bankrupt. The claims presented amounted only to \$570, the petitioners being Fayerweather & Ladew, of New York; Fuller & Fuller, and the Chicago Handle Bar Co.

At a meeting of the creditors, which followed the appointment of the receiver, it was the unanimous opinion that the business be continued by the receiver; this, it is believed, will assure the creditors better returns and avoid the sacrifice of the stock on hand that would follow the closing of the factory. About \$80,000 of the concern's \$100,000 liabilities was represented at the meeting. Under the direction of the receiver S. Walheim will continue in his old capacity as manager of the company.

This is not the first time that the March-Davis people have been in straits, and, in strictest truth, it cannot be said that the present trouble was unexpected. It has been prophesied for fully a year, the thin ice on which the company has been skating being common talk. The microscopic margins of profit on which the company sold its product were the talk of the trade, and seemed to invite disaster at any time.

Manson is Discharged.

At Chicago, Ill., last week, Judge Kohlsaat granted a final order of discharge in bankruptcy to Louis H. Manson. The proceedings in the case of the Manson Cycle Co., of which L. H. Manson was the guiding spirit, will be remembered by readers of the Bicycling World. In its schedule the liabilities were placed at \$110,000 and the assets at \$94,000.

TO PROTECT TRADEMARKS

Bill now in Congress for the Purpose—May Seriously Affect Jobbers.

Washington, D. C., Feb. 11.—Representative Lentz has introduced, by request a bill, having for its object the prevention of imitation, infringement, or illegal use of trade marks, and for the punishment of same by a fine of \$1,000 or six months' imprisonment, or both, at the discretion of the Court; also providing for the accurate accounting of all profits that may have accrued from such illegal use, and the payment of the same to the rightful owners of the trademark in question.

The following are the stipulated violations:

The knowingly or falsely making or counterfeiting a trademark by any person, company, or corporation.

The affixing to any article of merchandise a false or counterfeit trademark, knowing the same to be false or counterfeit, or the genuine trademark, or any imitation of the trademark of another without the owner's consent.

To sell, keep, or offer for sale any article of merchandise to which is affixed a false or counterfeit trademark, or the genuine trademark of another or of others, without the owner's consent.

To have in possession a counterfeit trademark, knowing it to be such, or a die, plate, brand, or other material or thing for the purpose of falsely making or counterfeiting a trade-mark.

To make, sell, or offer to sell or dispose of, or to have in possession with intent to sell or dispose of an article of merchandise with such a trademark as appears to indicate the quantity, character, place of manufacture or production, or person's manufacturing or producing the article, but not indicating it truly.

To knowingly sell, offer, or expose for sale any goods that are represented in any manner, by word or deed, to be the manufacture or product of any person, firm, or corporation other than themselves or himself, unless such goods are contained in the original packages and under the labels, marks, or names placed thereon by the manufacturer who is entitled to use such marks, names, brands, or trade marks.

To sell or expose for sale any goods in bulk to which no label or trade mark shall be attached, and shall by representation, name, or mark, written or printed, engraved or otherwise placed thereon, represent that such goods are the production or manufacture of a person, company, or corporation other than the true manufacturer.

On the information at hand it would seem that the last two clauses would play hob with jobbers generally, the cycle jobbers among the others. The jobber's practice of having goods made up for him and bearing his own trademark would be seriously interfered with if not absolutely stopped.

One More Final Hearing.

Echoes of the famous and long drawn out Worcester Cycle Mfg. Co. case are still being heard occasionally. In the United States Circuit Court at Boston last week, before Judge Brown, the case of the Central Trust Co. of New York against the Worcester Cycle Mfg. Co. and T. H. Gage, jr., of Worcester. The assignee in insolvency came up for a final hearing.

This is a suit to foreclose upon a mortgage made by the Worcester Cycle Mfg. Co. on factory property in Worcester to the Central Trust Co. of New York, the foreclosure being opposed by the assignee in insolvency of the cycle company, T. H. Gage, jr., of Worcester. The assignee in insolvency claims that the mortgage is invalid in all respects, and especially as to the property acquired after insolvency.

The city of Worcester, through City Solicitor A. P. Rugg, called up and argued the application for the payment of taxes upon the property sought to be foreclosed. Upon this phase of the case the Court took the papers.

The Queen City Construction Co., of Philadelphia, by its counsel, G. A. Lamb, of New York, moved for the reimbursement of the amounts paid as taxes and insurance, asking that these sums be made a charge against the receiver, but after considerable argument the motion was withdrawn. The property in question has been sold by consent to the Queen City Construction Co., the claims of the parties were transferred to the proceeds of sale, and it is over this that the controversy now exists.

How Price Affects Some People.

"Talk about trade conditions," said the traveller, "I ran across a peculiar situation in a Massachusetts town on my last trip.

"Having concluded business with our agent, and having some time to spare, I dropped into a bicycle store near the depot. I put the usual 'How's business?' to the dealer, and his reply summed up things in a fashion that ought to be good enough to print.

" 'How's business?' he repeated. 'It's hard to say,' he drawled. 'People here are kind o' funny. When prices were high they said they wouldn't buy until the prices came down. Now that prices are down, they come around and say the bicycles can't be as good as they used to be, because prices are so low.' "

Phoenix's Peculiar Trade.

Phoenix, Arizona, is evidently a peculiar place. Says the Republican of that place:

It is safe to say that there are not less than 2,500 bicycles owned in the city and vicinity, but among these there are probably not a hundred used for pleasure. Local dealers state, however, that their trade has not decreased, a fact which goes to show that the wheel still stands for rapid and economical transportation, but they say the decrease in pleasure riding has cut in greatly on the work of the repair shops and the sale of accessories.

TO REGULATE MOTOCYCLES

Connecticut Legislature Undertakes the Task—Reasonable Provisions Proposed.

By request, Representative E. J. Woodruff, of Orange, introduced in the Connecticut Legislature last week a bill designed to regulate the speed and operation of all motor vehicles.

The bill is noteworthy both as being the first which specifically mentions motor bicycles and as being framed in a spirit of entire fairness. Its provisions are of such a reasonable character that no user of a motor vehicle can consistently object to them. The limits of speed—a distinction being made between city streets and country roads—the regulations in regard to giving warning when approaching crossings, sounding bells, gongs, etc., all are handled in a manner almost beyond criticism.

The bill is as follows:

"Be it enacted by the Senate and House of Representatives in General Assembly convened:

"Section 1. *No automobile, motor tricycle, motor bicycle or motor carriage, or other two, three or four wheeled vehicle propelled by electricity, steam or gasoline, or any other power, shall be run on the highways at a speed to exceed twelve miles an hour.

"Sec. 2. No such vehicle shall within the limits of any city be run at a speed to exceed eight miles an hour.

"Sec. 3. Upon approaching a crossing of intersecting streets or roads the person having charge of the power of such vehicle shall have such vehicle under control, and shall reduce the speed of said vehicle until said crossing of such street or road shall have been passed.

"Sec. 4. Every person having control of the speed of such motor vehicle shall strike a gong or bell several times on approaching the crossing of a street or road, or the intersection of a street or road, and within fifty feet of such crossing, and shall strike a gong or bell at such other times and places so as to fully and amply warn any and all persons in the vicinity, and shall keep a vigilant lookout for all teams, carriages and vehicles of all descriptions.

"Sec. 5. Wherever the words 'motor vehicle' are used in the foregoing section it shall include all vehicles propelled by any other agent than a horse, excepting bicycles and cars of electric railways.

"Sec. 6. Any person violating any of the provisions of the foregoing sections shall be fined not less than \$10 nor more than \$100 for each offence."

The spring seat post makers certainly leave little room for skepticism or complaint. The Berkey Spring Seat Post Co., of Grand Rapids, for instance, refund the purchase price should the buyer be disappointed with his post.

SLEE ON LUBRICANTS

Explodes Popular Idea of Vaseline and Talks of Graphite and Other Things.

Mr. Slee was in fine fettle; there was no mistaking it. He had gradually warmed to his subject, and were it possible to phonographically reproduce his wealth of words and expression, this interview, despite its Coleness, would rank as one of the most instructive essays on lubricants and lubrication, of bicycles in particular, that ever has been put into type.

As the trade well knows, Mr. Slee—J. Noah H. Slee—is treasurer of the G. W. Cole Co., whose 3-in-One has, despite its lack of acid, eaten or worn for itself an enduring niche in the hall of industrial fame. The Cole Co. markets several lubricants, but 3-in-One oil enters into all of them. As he was speaking, Mr. Slee picked up a tube of Cole's "P. M.," or pace-maker lubricant.

"Take this," he said, referring to the "P. M.," "and compare it with other lubricants of the kind. This is a compound of 3-in-One oil and the purest graphite known—piano graphite, they call it. Nothing better can be purchased; it is guaranteed to us to be 97 per cent pure and we repeat the guarantee. This means a graphite that does not gum nor stick nor cake on the working surface of the chain. Mixed with our 3-in-One, it melts and flows into the rivets of the chain and it is the rivets, the working joints that require lubrication, not the face of the chain nor the teeth of the sprockets.

"Very many riders and too many dealers and repair men do not appreciate the fact but the fact remains, nevertheless. Too many of them merely rub any old graphite that comes cheapest on the surface of the chain and imagine that the paste deposited lubricates it. The quality of the graphite cuts little or no figure in their minds. They do not realize that much of the so-called graphite is merely lamp black and that graphite itself runs from 97 per cent pure downward.

"Vaseline," continued Mr. Slee, "is another much used and much advised lubricant for bicycles. Not a few of you newspaper men are prone to advise its use and yet vaseline is not a lubricant and was never intended to be one; more than this, the word vaseline is an advertisement in itself; it is a trade name—a trademark—and is the property of a particular manufacturer. If the press more generally understood the fact I doubt whether vaseline would be given so much gratuitous advertising.

"Bicycle assemblers first used vaseline in bearings because it was sticky and therefore held the balls in their cups while the axles were being put in place. In this way it was handed down as a lubricant when as a matter of fact it is nothing of the sort; it is a mineral substance from which the lubricat-

ing properties have been extracted. It does not melt nor lubricate; it thickens and gums and finally becomes a dirty, half-dry paste that can be scraped off. For this reason it has no place in a bicycle bearing, and for another reason it has less: It holds the balls together, and as a result they do not roll as should be the case—they merely slide around in their cups.

"Sewing machine oil is another lubricant that gums," went on Mr. Slee. "It is not nearly so bad as vaseline, but it gums just the same. Wet your finger with such oil and put a streak of it on a window pane and it will thicken and dry. Do the same with 3-in-One and it will melt and flow away; it leaves no deposit.

"That's the object of a lubricant—to reach the part that requires lubrication and that will lubricate without gumming or injury. There's no acid in 3-in-One, in "P. M.," nor in "R. R."—our rust remover; they can be used anywhere and on anything without fear of injury. Why, up at the factory they tell us that the workmen take 3-in-One internally as a cough cure. Don't smile! It's a fact," continued Mr. Slee. "Why, we have letters here from one man who says he uses it on chapped hands and from another who finds it a tip top article for softening and preserving his shoes."

"Shall I say that 3-in-One is now recommended for coughs, colds, etc.?" laughed the *Bicycling World* man.

"Of course not," laughed Mr. Slee in return, "but what I tell you is so. I cited those instances merely to show you how harmless is our lubricant; it's the absence of acid that makes such things possible."

Making Ready for Rapids.

J. Elmer Pratt, so long identified with the Clipper bicycle, is in New York this week attending a meeting of the League of American Sportsmen.

He confirms the report that the Rapid Rife Co., of which he is now the head, will add the Rapid bicycle to its manufactures. The Rapid people are now installed in the old Clipper factory in Grand Rapids, Mich., and have an option on the dies and tools and some of the stock that made the Clipper bicycle famous, and Rapid bicycles, following the Clipper lines, will be ready for the spring trade.

All who know Pratt and the Clipper will be instantly drawn to the Rapid, and in numbers sufficient to assure the future of the newcomer.

Addition to Boston's Cycle Row.

It is so long since Boston's "cycle row" has had an addition that the opening of a new store at No. 243 Columbus avenue is in the nature of an event. A. T. Fuller is the dealer who "opened up" at that address, the Orient bicycle being his leader, that agency having been shifted from H. B. Shattuck & Son, but a door or two away. Mr. Fuller, who also conducts a store in Malden, will also continue that establishment.

IN DUNLOP'S DOMINION

How That Tire Monopoly Applies Thumb Screws to the English Trade.

One of the results of the excessively high prices charged for English tires and parts thereof is the practice so generally followed by the trade of making all sorts of repairs without calling on the tire makers for renewal parts.

The latter cost so much—ininitely more than would be the case if the patents were off—that the repairer is constantly tempted to buy parts in the open market as well as to make repairs himself whenever he possibly can. This keeps him embroiled with the Dunlop Co.—which is, of course, the dominating factor in the trade—and leads to reprisals on the part of the latter, these usually taking the form of prosecutions for infringement of patents.

It is seldom that English double-tube tires are thrown away. They are patched and tinkered with, one part after another replaced, until there is nothing left of the original tire. This is plainly shown by the revised list of repairs which the Dunlop Co. permits repairers to make, as follows:

"(1) It is forbidden to supply covers with new tires. The reason of that is plain. Unscrupulous people would not hesitate, if allowed to stock wires, to build covers round them and sell these imitations as the genuine article at their own price. Further, defective qualities and incorrect length of wire might be used.

"(2) It is forbidden to reline a cover with a complete new fabric, but an old fabric may be patched if it remains part and parcel of the old cover. Apart from the facility thus provided for infringement, any kind of lining might be used, with consequent injury to the company's reputation.

"(3) New strips must not be provided bearing the registered design of the company unless purchased from them. Considerations of identification and considerations of quality then arise. Old strips may be patched.

"Thus (1) old wires may be brazed, (2) old fabric may be patched, and (3) old strips may be repaired or new ones applied if purchased from the company."

Third Decision is Final.

After a battle lasting four years and involving three court decisions, the responsibility of Francis W. Gridley as a partner in the Dodge Cycle Co., of Syracuse, N. Y., has been fixed. Last week the New York State Court of Appeals affirmed the finding of the Appellate Division, which in turn had approved the decision of the original court. The suit was brought by Morgan & Wright, who asked for a judgment of \$435 and costs on a promissory note given them by the Dodge Co. before its failure in 1897.



THE NATIONAL CHAINLESS

Different from all others.
Simpler than all others.
Better than most others.

LIKE OTHER NATIONALS—IT'S A SPECIALTY.

No small nuts or bolts to work loose.
No split gear cases to leak oil.
Easy to adjust—Easy to keep clean.
Easy to ride.

WEIGHT, 25 lbs. PRICE, \$65.00.

The parts of our bicycles are made by ourselves from our own designs.
We neither sell them separately nor give the right to manufacture
them to others. They are used only in Nationals.

ALL NATIONAL BICYCLES CARRY OUR TRADE-MARK.

NATIONAL CYCLE MFG. CO.,

BAY CITY, MICH.



Fisk Tires

The Fisk Valve Stem.

The little stem that protrudes through the rim is an insignificant looking portion of the tire; one would not think it played a very important part in the work. But it does. It is important in inverse ratio to its size. It is the part that determines whether your tire is going to leak or give you service.

The Fisk valve stem is practically unbreakable. The lining is semi-cured before the stem is made up, so that heat does not affect it when the tire is vulcanized. This makes it strong and impervious to puncture by the adjacent fabric; it insures a valve stem **that will never leak.**

Other valve stems are not made as the Fisk stem. It is original—it is serviceable—it is the one successful valve stem among a host of unsuccessful ones.

FISK RUBBER COMPANY, Chicopee Falls, Mass.

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THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
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Published Every Thursday

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Entered as second-class matter at the New York, N. Y., Post Office, September, 1900.

General Agents: The American News Co., New York City and its branches.

Change of advertisements is not guaranteed unless copy therefor is in hand on SATURDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, FEBRUARY 14, 1901.

Orders for "Motocycles and How to Manage Them" can now be accepted only subject to delay. The edition has been exhausted and the book is being revised and brought up to date. Deliveries cannot be promised before the end of February.

Take Action Now.

To take time by the forelock is to secure a great advantage at the outset.

This fact should be borne in mind by the various dealers' and repairers' associations existing throughout the country, which accomplished so much good last season.

There is no better time than now for them to get their organizations in order for the 1901 battle; a few of them have already taken measures looking to this end. The greater number, however, have made no move.

If they are well advised they will lose no time in getting to work.

Strikes at the Jobber.

Bills introduced into Congress "by request" are rarely dangerous. The intro-

ducers seldom view them as other than illegitimate creations, and trouble themselves little regarding the future of such measures.

For this reason the act designed to protect trademarks introduced by Representative Lentz, "by request," is not likely to be again heard from, but it may be the better part of wisdom did the trade keep an eye on it.

There's a deal of virtue in the bill, but the practice of jobbers having goods made for them and then using their own labels, nameplates or trademarks is now so firmly ingrained in practically all industries that a serious effort to compel its discontinuance is certain to cause a mighty howl.

Mr. Lentz's "by request" measure makes for this very end, and that is why it may not be well to treat the measure with too silent contempt or too calm assurance that it is not a serious effort.

Quality, like Blood, is Telling.

As the season advances it is made plainer that not only in bicycles but in sundries and all other accessories, the demand is running stronger than ever to the better known and higher grade goods. The jobber and dealer are looking over and beyond the mere matter of price.

While it is not meant that buyers permit price to play no part in their calculations—that is a wholly impossible condition—it is meant that at anything like equal figures the article of the better quality is now obtaining its due in larger and increasing measure than for the last several years.

Talks with several prominent makers and jobbers abundantly confirm this state of affairs. They say that it is due entirely to the lessons taught by experience.

The leveling of the weaklings of the trade has brought the lessons home to many. In the past, the jobber, for instance, has been prone to catalog almost any article that came to his notice or that he was requested to catalog, with little regard to its source. If the price assured large returns, his travelers have pushed the goods and created a demand among dealers who in turn have kept the articles to the fore and built up a more or less profitable trade.

In not a few instances, the next year has found the makers of the particular wares in straits or out of business. As a result jobber and dealer have been compelled to devote themselves to building up a trade on something else of the same nature and thus do their work all over again.

These conditions have had their natural effect. Buyers are not so readily dazzled by price. They are readier to consider the standing of the manufacturer and to concern themselves regarding his future—his ability to carry himself beyond a season or two. It is this that is turning the tide toward the staple wares which have made their mark and which, like the tide itself, are best fitted to "go on forever."

It is not the time when the lowly or the obscure or the maker who hides his light under a bushel and whose price is his loudest slogan is received with the "most distinguished consideration" which was once his lot.

Quality, like blood, will tell and quality is now telling; it is rising superior to price.

Enacting Reasonable Legislation.

The motorcycle and the automobile are about due for legislative action. In several States they are already receiving it but in none with more sanity and less prejudice than in Connecticut.

The bill introduced by Mr. Woodruff, by request, which is reprinted in another column, is evidence of the fact. We do not know who is the real author of the measure, but whoever he may be, it is only fair to say that he "knows his book" and has grasped Time's forelock as it should be grasped.

The fault with most speed regulations is that they impose impossible limits—limits so slow that, if enforced, would rob the bicycle, motorcycle or automobile of its pleasure and utility and require that the rider or driver be possessed of the tricks and traits of the professional juggler and contortionist.

The Connecticut limit of twelve miles per hour is reasonable and possible; it merits enactment in that State and emulation in the others.

Where Distress is Felt Least.

"The farther I go away from the cities and large towns the healthier I find the situation and the more machines I sell," said a travelling man who had covered a large extent of territory recently.

His remark was but a confirmation of the view entertained by nearly every tradesman who has of late years given the subject much thought.

The reaction following the boom was felt most severely in the centers of population. They had been most zealously worked, first by the makers who deemed it absolutely necessary to have representation there, and

second by the dealer who in his eagerness to reap benefit from the enormous sales overlooked the fact that the number of competitors kept the average down to a very low figure.

For this reason there has been a steady diminution of sales in the cities, while the country districts have gone on taking care of an increasing amount of business. In consequence of this it was not until last year that the total sales showed a falling off.

Of course, this state of affairs cannot always continue. The time must come when the country will be pretty well supplied, reference being had to new riders, and only a very considerable number of replacements of old machines with new ones can prevent a falling off.

That point has not been reached yet, however, and it may be that when it is there will be an improvement in the cities. In fact, there are faint indications that such a thing may happen before very long, and if it does its full benefit will inure to the trade.

Guarantees Cease to Trouble.

As is so often the case, guarantees, from being one of the most talked-of features of the bicycle business, have become one of the least regarded and discussed of them all.

The fact that they have ceased to be a factor in the business bears out the old contention of certain manufacturers that good goods needed no guarantees—meaning thereby that their makers could always be depended upon to do what was right—and that sound construction and sustained reputation were better than all the printed guarantees that were ever issued.

Some of these critics went further and contended that guarantees did actual harm, inasmuch as they generated a belief that the care of the machine for the period of the guarantee was meant, and that consequently demands were made on makers and dealers which were quite beyond reason.

Without indorsing this contention in toto it must be admitted that it is a very plausible one. As proof of this it may be said that with the limitation of the guarantee to sixty days—which was virtually a withdrawal of it—it ceased to trouble trade or public.

Furthermore, what many tradesmen contended was the ideal condition came about, viz., that a reputable maker always backed up his goods and made right any trouble caused by his fault.

If a frame or fork broke, say, at the end of six months, and the fracture was plainly

the result of a flaw or other imperfection, a concern with a regard for its reputation would almost certainly make the replacement without hesitation.

Matters having thus adjusted themselves, it is not altogether surprising that there is a growing disposition in some quarters to extend the guarantee period.

There is no blowing of trumpets to herald the matter, and no particular effort to make capital out of it. But it is a fact that at the present time a very large number of makers are guaranteeing their machines for the calendar year and are well satisfied with the innovation.

Attaching Motors to Bicycles.

At the first blush the attachment of a motor to a bicycle seems to be a very simple matter.

Any bicycle will do, and almost any motor. Just clamp the latter to some convenient part of the frame, make the necessary connections and start off.

There is nothing difficult in all that. In fact, it is so surprisingly easy that the wonder is why it has not already been done and over and over again.

But even a slight study of the matter effectually dispells such illusions as these. The knowledge is speedily forced on the student that, far from being a simple matter, to be settled almost offhand, the placing of the motor and the solving of the other problems connected with the building of a motor bicycle are matters requiring an infinity of knowledge and skill.

One of the first lessons learned is that the average pedal-driven bicycle is not a fit subject on which to try the experiment. It is scarcely too much to say that no ordinary bicycle should have thrust upon it the more than doubtful honor of carrying the motor and its various attachments.

If this involved only the carrying of the additional weight the above assertion would still hold good.

For it is notorious that the factor of safety in the present-day bicycle is extremely small; and this notwithstanding the featherweight era has passed away. The addition of fifty or one hundred pounds of dead weight would reach or pass the danger point in many machines.

But this is not all. The addition of the motor introduces vibration—excessive and continuous—and makes it only a question of time when a failure will occur.

With the ordinary bicycle vibration has long been a factor, and no mean one, either.

In spite of the most strenuous efforts to reduce its effects to a minimum, vibration continues to be the cause of a considerable number of the breakages—especially to frames and forks—which still occur.

With the motor bicycle only extraordinary measures taken to strengthen frames and forks, the use of heavier tubing, reinforcements and lugs, will fit them to successfully resist the stresses to which they must inevitably be subjected.

It is only necessary to undertake a few experiments bearing on the subject to have this fact borne home.

And, it may be added, it is because this knowledge has already been acquired that we hear so little talk now of motors being fitted to ordinary bicycles.

Spring Frame's Reflected Triumph.

Despite the great wave of cushion-frame interest, it is rather remarkable that absolutely no mention has been made or desire expressed for spring forks.

It is in striking contrast to the conditions that prevailed in the early '90's. At that time the trade was divided into two camps—one made up of advocates of spring frames, the other of those favoring spring forks.

Gormully & Jeffery and Duryea were the chieftains of the former camp, while Pope, Overman and Lozier espoused the cause of the spring fork. There was lots of warm breath wasted and gallons of ink spilled in the arguments that ensued.

The "spring-forkers" maintained that it was at the fork that vibration properly should be arrested; they held that at that point vibration was killed or reduced before it reached the rider's body. The other side as earnestly argued that spring forks absorbed only the minor shocks; that the spring frame was the only correct idea; that it only could save the rider from the jolts and jars that "do the damage."

In those days riders and dealers took up such discussions, and the spring-fork vs. spring-frame contention spread from ocean to ocean, but in good time all parties to the discussion ceased not only their contentions, but the principals abandoned their spring forks and their spring frames; and until the Hygienic cushion frame pushed aside ridicule and opposition not even an echo was heard of the "hurrah" that once enlivened the trade.

While the cushion frame differs materially from the article of the '90s, its triumph of to-day is in the nature of a reflected victory for the spring-frame advocates.

FRESH FROM FRANCE

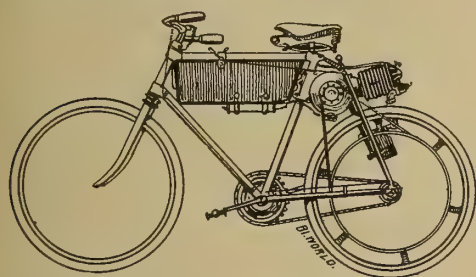
Some New and Clever Ideas in Motor Bicycles that Cropped Out at the Paris Show.

Paris, Feb. 1.—The motor bicycle looms large in the automobile show which was opened here last Friday. In a general way the single-track machine does not seem so well fitted for the application of a motor as the tricycle, and in the case of the motor bicycle it is the supply that creates the demand.

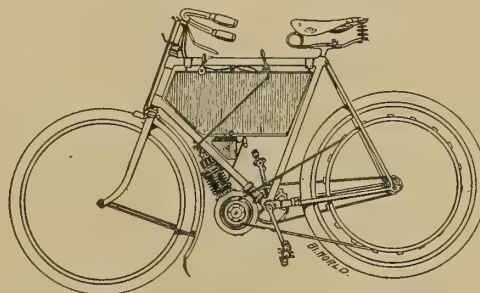
Previous to the opening of the show there may have been few people who really had faith in the bicycle as a practical machine, for the reason that the design does not lend itself very readily to mechanical propulsion. But the makers show that they have been able to get excellent results out of their limited opportunities. Every maker who has been able to get hold of a new motor or devise new transmission or invent a novel method of applying the mechanism is going

bottom bracket or behind it or below it. But if you come to look at it this appears to be an entire fallacy. In fixing the centre of gravity you do not take the bicycle alone, but the man upon it as well, and the centre of gravity is therefore just underneath the saddle. Just consider the action of a cyclist taking a corner. The centrifugal force tends to drive the wheels outward, which is only prevented by lateral resistance of the tires on the ground; but if the weight of the motor be placed low down this increases the outward push, though it may not be so much as to overcome the resistance, except on greasy roads. Besides, it is only necessary to draw a perpendicular line through the diagram of a rider in this position to show that the safest place for the motor is somewhere on a horizontal line with the saddle. After all, this is not a very important point, as the difference either way is small, and the fixing of the motor low down may be justified by certain advantages, such as, for example, a better utilization of power.

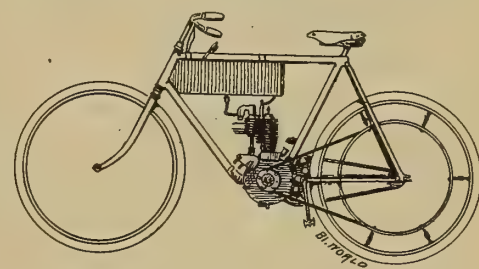
Then there is the question of what is the best position to fix the motor, for there are plenty of ways in which this can be done.



LA CENTAURE.



LA VICTOIRE.



LA SALVATOR.

in for their manufacture. These efforts after originality have resulted in quite a large number of different types, and, what is more, they have convinced the public that there is something in the motor bicycle, after all, though perhaps the show of the machines themselves has not done so much to make their merits known as the persuasive eloquence of the makers who have all their own theories as to what the perfect bicycle should be.

This is just where no one maker has an advantage over another. To misquote an old Latin proverb, "There are as many theories as there are makers." While the bicycle came out at almost the same time as the tricycle, it has been languishing for so long a time that, now it is becoming really practical, it may be regarded as a new machine. There has been no experimenting to show in what way the power should be applied to give the best results, or, rather, each maker has been experimenting on his own account with his particular system and finds it perfect; but, so far as the public are concerned, no attention whatever has been given to the mechanics of the motor bicycle.

It has always been an article of faith that the centre of gravity should be placed as low down as possible, in the same way as in automobiles, and most manufacturers have been putting their motors on the top of the

and there are as many systems in the show as possible applications for mechanical driving, whether by fixing the motor on the head tube, behind the saddle, on the bottom bracket or on any other part of the machine, and whether the power is to be transmitted by belts or chains or by direct gearing to the front or the back wheel. Each maker, of course, claims that his system gives the maximum of advantage, but as we have been promised an opportunity of trying some of the different types of bicycles we shall be able to give a personal opinion after actual test.

All the bicycles in the show are, with one or two exceptions, fitted with motors with a maximum of $1\frac{1}{4}$ horsepower, and one of these exceptions is the Cyclette Iochum, manufactured by M. Gabriel Iochum, 1 Rue Isabelle, Nancy. The motor is the old pattern $1\frac{1}{4}$ horsepower De Dion, which has been fixed on the bottom bracket by an attachment to the diagonal tube, and its novelty lies in the fact that it has been entirely inclosed in an aluminum case which is intended to facilitate cooling of the motor by creating a strong draught of air which will enter the case at the centre of the fly wheel, and, after circulating around the ribs, will issue from the case at the top. For this reason a special form of fly wheel has been fitted, which draws in the air through the

centre of the case, and it is evident that when running at more than a thousand revolutions a minute the volume of air passing through must be considerable. It is fitted with a free wheel and change-speed gear operated by a lever on the top tube. Another feature of the bicycle is the carburetor, which, it is said, will allow of the motor running equally well with alcohol or gasoline, so that the owner may always be sure of getting supplies wherever he may find himself. The maker claims that this machine can go up any hill without the aid of the pedals, and we have no difficulty in believing the statement; but we should like to see what effect a $1\frac{3}{4}$ horsepower motor would have upon the machine, as it seems to be put in the right position for sending vibration right through the frame. It may be added that the weight of the bicycle is ninety-nine pounds.

The Landru motor bicycle is one of the few machine with a specially designed frame for running with the motor. The down tube is replaced with two tubes of smaller gauge, the ends of which are brazed on each side of the head tube, and then come round the back of the front wheel and extend horizontally to the bottom bracket to form a bed

for the motor, which is bolted between the tubes. The motor is slightly out of the perpendicular, and the motor shaft is connected with the sprocket by a chain. The cells are carried behind the motor, and the gasoline is stored in a cylindrical tank between the two top tubes. The weight of the bicycle is about seventy-seven pounds.

In the Motocyclette, constructed by Chappelle Freres, of Saint-Ouen-l'Aumone (Seine et Oise), the motor is fixed vertically on the bottom bracket, as in the case of a good many others, but it is rather more powerful, and it is said to develop $1\frac{1}{2}$ horsepower, so as to carry it up any hill. The feature of this machine is the transmission, which is effected by means of a leather belt carried on two pulleys of large diameter, one on the motor shaft and the other on the hub of the back wheel, the idea of the large pulleys being to give plenty of adhesion to the belt and prevent slipping. The motor is thrown out of gear by means of a lever behind the head tube, and the bicycle can be fitted with a change-speed gear if desired. As with certain other machines, the carburetor is of the sprayed type, which undoubtedly seems to result in an economy of consumption, and, moreover, allows of alcohol being used; but, on the other hand, it cannot be so easily regulated as the ordinary carburetor. The gasoline is carried between the two top

horizontal tubes, and the induction coil is suspended underneath, while the dry cells are carried on the back fork just underneath the saddle.

Another method of motor attachment is seen in the Centaure bicycle of L. Flinois, who casts his motor case with a bracket, so that it can be bolted to any part of the machine, and on the bicycles exhibited he has fixed it near the top of the diagonal just underneath the saddle, so that it inclines over the back wheel a little above the horizontal. By running at two thousand revolutions it is said to develop $1\frac{1}{2}$ horsepower, but it is obviously quite out of the question that an air-cooled motor would be able to run at this speed for any length of time without risk of overheating. The motor is geared to the rear driving wheel by means of a belt over a pulley which is attached to the spokes of the driving wheel. One of the back forks carries a muffler, and the rectangular gasoline tank is suspended from the top bar. There is a tap to release the compression, so that the bicycle can be easily driven with the pedals if the owner should run out of gasoline. The weight of the machine is about eighty-three pounds.

A very elegant bicycle is being shown by the Compagnie Française des Moteurs et Autocycles Salvator, in which we again see the tendency which is growing among makers to build the motor as part of the machine, instead of merely fixing it to any kind of frame. In the Salvator bicycle a motor is mounted on a bracket and the end of the down tube to carry the motor, which is held vertically by means of bolts, so that it can be easily removed if necessary. The motor develops $1\frac{1}{2}$ horsepower, and the transmission is composed of a belt from the motor shaft to a pulley on the rear driving wheel. The motor is cast with ribs having a very large surface, and the exhaust valve is in front, so as to have full advantage of the air. A feature of this bicycle is a new method of magneto-electric ignition, which, however, was not fixed to the bicycle shown, but we shall have an opportunity of testing it later on. The Salvator magneto-electric device is said to weigh less than a pound.

Something entirely new in motor bicycle construction is shown by the Ateliers de Construction Mécaniques, of Mulhouse, Alsace, in which the makers have tried to combine the advantages of the front motor with rear driving. It may perhaps be questioned whether the advantage of putting the motor on the head tube is so great as is generally supposed, but, at any rate, it is much better situated for cooling than if placed at the rear, while the bicycle has a nicer appearance. By putting the motor on the head tube the best way of transmitting power would naturally seem to be by means of a belt on the front wheel, as in the case of the Werner machine; but to do this the axis of the motor must follow the plane of the wheel, so that the weight of the motor seriously affects the stability of the bicycle when steering. In the Autobicyclette Du-

commun, as the new machine is called, the motor is fixed to the head tube, so that it does not move with the steering handles, and power is transmitted from the motor shaft by a long belt to the rear driving wheel in the usual way. The rider's leg is protected from the belt by a guard made of metallic gauze. The motor runs at fifteen hundred revolutions and develops $1\frac{1}{2}$ horsepower. Its power is varied by means of a lever which regulates the spring on the exhaust valve, so that the compression, and therefore the power, can be varied at will. The machine has a high and low speed gear which is operated by a lever on the top tube. The consumption of gasoline is said to be two litres for a hundred kilometres, and the tank suspended from the horizontal tube will carry enough to allow of the machine running a hundred miles without a stop. It should also be noted that the gasoline is pulverized or sprayed into the inlet tube, instead of being carburetted in the usual way, and this system is being adopted by a good many firms, who say that it is much more economical, though, of course, the mixture cannot be regulated while on the machine, as can be done with the carburetter.

The Lamaudiere and Labre bicycle has been on the market for some considerable time, and has proved itself to be a highly serviceable machine. The motor is here fixed on the diagonal tube just above the bottom bracket, and power is transmitted to the rear wheel by a belt which is kept taut by a jockey pulley. The firm have carried out several improvements, notably in increasing the power of the motor from $1\frac{1}{4}$ to 2 horsepower, while they have replaced the carburetter with a pulverizer. The machine weighs only sixty-six pounds in full working order.

One of the claims for La Victoire motorcycle is that the motor can be adapted to any machine, and is cast with a bracket, so that it may be conveniently bolted to any of the tubes. In the machine exhibited it is fixed below the down tube, and power is transmitted in the usual way by a belt. Another newcomer is Le Progrès motor bicycle, constructed at Vervins (Aisne), in which the motor is placed as low down as possible and is bolted to the rear of the diagonal tube, so that the motor case is below the bottom bracket. It is claimed that the machine will take all the hills without pedalling, and will go at a speed of thirty miles an hour.

This summary account will show that the French cycle makers have taken up the motorcycle business with a great deal of spirit, and seem likely to build up a very satisfactory trade in these machines.

Case in Good Hands.

March 8 is the date and New Haven, Conn., the place selected for the hearing in the case of the Single Tube Tire Co. vs. the Hartford Rubber Works Co., referred to by the *Bicycling World* recently. Judge Townsend, well known and versed in tire litigation, will hear the case.

Demorest Prophecies Fulfilled.

To the agent or dealer whose trade requires a wheel that will stand the wear and tear of rough usage 365 days in the year, and to sell at a moderate price, the announcement of the Demorest Manufacturing Company, of Williamsport, Penn., on another page, cannot fail to be of interest.

This company was the first of the big sewing machine makers to embark in the bicycle business, and they brought to bear at once the wonderful labor and money saving devices, and accurate system of manufacture that had made the first class low priced sewing machines possible.

As long ago as the first bicycle show at Philadelphia, Manager Hugh MacDonald predicted that after the world craze for bicycles was over and the fad period had passed, the sewing machine makers would be among the few left who could continue to manufacture and sell good bicycles at low prices. From the first the Demorest company have had but one policy, viz.: To build a plain, serviceable wheel, honest from the ground up, one that would endure, and then sell it at a reasonable price. With sturdy Scotch honesty Mr. MacDonald has been deaf to all appeals to cheapen the quality in order to meet lower prices, stoutly asserting that rather than do so, he would get out of the business altogether. During the low price epidemic of the last couple of years the Demorest company have "laid low," making no attempt to secure business at the prices prevailing, and accepting only that which came their way.

For next season they believe there is a sufficient number of dealers who, sick of that most costly of investments, a cheap wheel, are ready and willing to pay a fair price for one that answers all requirements. To such dealers the Demorest company offer a proposition that they say ensures permanent business.

G & J's Addition.

The G. & J. Tire Co. are now making 28x1 $\frac{3}{4}$ -inch G. & J. tires for use on the 28x1 $\frac{1}{2}$ -1 $\frac{3}{8}$ -inch G. & J. rim—a change that will no doubt be welcomed by the trade, as it renders unnecessary the use of special rims and special spokes for 1 $\frac{3}{4}$ -inch tires, as was previously the case.

For the present, the G. & J. tire people state, the new style, or size, will be shipped only when specially ordered. They will continue to carry a stock of tires suitable for the 1 $\frac{3}{4}$ -inch rim that has been used in the past.

Reading's New Company.

The Xander Machine and Supply Co., Ltd., of Reading, Pa., has been formed by J. G. Xander, general manager of the Keystone M. & M. Co., of Lebanon, Pa., and William G. Schaeffer and A. J. Shartle, of Reading, both of whom have been connected with the old Acme Mfg. Co. In addition to general machine and experimental work, the new concern will manufacture automobile parts and fittings, and store and keep automobiles and bicycles in repair.

THE TRAVELER'S TALE

Was Told to Sound the Trade on Motorcycles
—Result was Eye-opening.

He had just finished a week of hard and rather discouraging work—work that had been unproductive of immediate results, although holding out well-founded hopes for the future. Consequently he was in rather a pessimistic mood.

"Selling bicycles is not what it used to be," he began. "It's bad enough when you are travelling around among dealers who have been looking for you, or at least are glad to see you and to know just what you have to offer and on what terms they can close arrangements for the coming season. I say it is bad enough then, for the good old blanket orders, with specifications and delivery dates, are rarely taken, nowadays. Still, you can sell a few sample machines and get promises of repeat orders.

"But when you have to go among new people, or people who may have known your line of goods a few years ago but have forgotten it and taken up other machines in place of yours, it is very much worse. You have to begin at the beginning, knowing full well that the chance of your doing any business is very remote; and if you should be mistaken and make a sale you are so elated that you scarcely know whether you are standing on your head or your heels.

"Why, some of these people will scarcely accord you common courtesy. It is as much as you can do to induce them to look at your card and learn what you are trying to sell. As for getting them to talk about the machine, its design, construction, etc., it is utterly out of the question.

"I was late in starting out, to be sure, and almost every dealer I approached was able to say with truth that he had already made his arrangements for the coming season. As a rule he had a few 1901 machines in stock—just for samples—and he was not going to add to their number until the season opened. No amount of argument availed to shake this determination—which, I must admit, was a very wise one.

"But what a change came over these same dealers as soon as motor bicycles were mentioned! They loosened up immediately—became all attention and eagerness—asked me to sit down and in every way made amends for the lack of cordiality which had up to that time been the most marked feature of my reception.

"They wanted to know all about motor bicycles. They had given the matter attention and knew there would be a number of different makes on the market when the season opened. But they wanted something more specific, wanted to see the machine at closer range, as it were. So they listened with avidity while I told my story, and I was not backward in enlarging on the subject as it deserved.

"Prices, weights, shapes, what such machines would or would not do—these were some of the things they were interested in. The lower the price the better, they said, in this respect being practically a unit, for then they could sell more of them. But they were willing to take them at any price, for they knew that they could sell them. If they were started high there would be the more room to drop; and this would not be such a bad thing, after all.

"I really believe that I could have taken my pick of the trade in each town I visited if I had been able to show a motor bicycle. As it was, I could only say that we had one on the way, that it would be along at the beginning of the season, and that it would fill the bill in every particular. This seemed to do some good, and all the dealers visited assured me of a cordial welcome when I returned.

"You may rest assured that my people have heard from me on the subject of motor bicycles, and in no uncertain manner. In fact, I have each night devoted the greater part of my letter to them to the subject. If they don't take courage and prepare for a big trade in such machines it won't be because I have not urged them to do so."

Got More Than he Expected.

With the sale of the remaining stock and machinery of the Stockton Mfg. Co., of Newark, N. J., which took place last week, that concern passed from sight. Receiver Frederick F. Guild filed his final report with Vice-Chancellor Emery, and was formally discharged from his receivership.

In his report Mr. Guild states that he effected a sale of all the stock and machinery of the insolvent concern to George T. Hatt for \$3,100, a much better offer than he had reason to expect.

Why Shelby Passes Dividends.

The Shelby Steel Tube Co., Chicago, will pass the dividend on its preferred stock. It has been decided not to resume payment until the change of the company's machinery for the manufacture of heavier tubing has been completed and cost covered. A director of the company says: "We are now turning out the heavy product, and will steadily increase our output. The dividend is cumulative, and it will not take long to catch up once we get started."

Motorcycles on Installments.

John Wanamaker's two stores—at New York and Philadelphia—have started an "Orient Automobile Club," its object being to sell Orient tricycles and quadricycles on the time payment plan. These machines are sold at the regular list price, plus interest at the rate of 4 per cent per annum on the unpaid part. On the tricycle the terms are \$50 down and \$50 per month for eight months, while for the quadricycles the division is \$80 cash and \$65 per month for eight months.

Further progress was made by the gasoline-on-ferries bill on Wednesday, when it was favorably reported to the Senate at Washington.

IT
IS NOT
THE FINGER

of fate or destiny or anything of the sort,
but such

as it is
straight at
best bicycle
that it is
to



it points
the very
saddle
possible
produce.



NO MAN

can make a better one. Several have tried to make as good and all have failed in their efforts. Their imitations cannot stand the test of comparison, and the Persons stands clearly and well defined as a

BADGE OF QUALITY—

as an assurance of highgradeness—as a guarantee that the makers of the bicycle to which it is fitted are honest in their aim to uphold their reputations and to offer only that which is best in every particular.

CALL UP THE BICYCLES

to which Persons saddles are fitted and you will find them synonymous with leadership. If you would know more about them, we are at your service.

PERSONS
MFG. CO.

WORCESTER,
MASS.

Free Wheels' Great Showing.

It is estimated by an English journal that over two hundred thousand "free-wheel" devices were fitted to cycles in the United Kingdom last year, and that 75 per cent of the machines now being manufactured for the approaching season are being similarly equipped.

"It may interest my readers to know," the journal says, "that it is possible to obtain accurate figures of the number of free-wheel clutches made in this country under the Morrow patent. This covers all friction clutches where the rollers are kept up to their work by blocks or springs, and the number made and sold and upon which royalty has been paid in the last twelve months is 64,600.

"Besides this type, there are the friction clutches that do not come within the scope of the Morrow patent, the largest output of which, in all probability, is that of the B. S. A. Co. We might safely put the total sale of roller clutches, therefore, at 100,000. What number of ratchet clutches were sold is beyond computation, but it could scarcely equal the output of roller clutches.

"Besides these there were sold over 23,000 Morrow hubs (of which about 2,000 went on to the Continent), and then there was the output of Britannia, Otto, hub two-speed gear (of which latter, I understand, a very large number have been sold), and many other devices that may not occur to me at the

moment of writing. It is therefore more than probable that over two hundred thousand machines were fitted with a free-wheel device last year."

Linscott Stirs Things.

Among the trade visitors in New York last week was Mr. J. M. Linscott, manager of the Boston Cycle and Sundry Co., Boston, Mass. Since the organization of this new company Mr. Linscott has been a very busy individual, and if the company does not obtain its share of the business in New-England it will not be for lack of aggressiveness.

Talking of trade conditions, Mr. Linscott says that business is further advanced this year than at any time within the last three seasons; orders are being booked in a highly satisfactory manner.

"Within the last four weeks," he said, "we have closed two of the biggest tire deals in the history of the New England trade. We have purchased for cash 16,400 pairs of Kangaroo tires and 7,000 pairs of Fisk No. 66 tires, which, owing to the unsettled condition of the tire market, gives us one of the best propositions of the year. We have also taken the general agency of the Stratton motor bicycle, which attracted so much notice at the New York show. We will carry in stock, ready for prompt shipment, a complete line of sundries and fittings; and, in fact, we will be able to fill promptly any order that may be placed with us at the lowest prevailing prices."

When Trade Warfare is Wise.

"The fierce struggle for business sometimes leads men engaged in like occupations to distrust each other and take unfair means to promote trade," says an oracle of the hardware trade, "but it is to be hoped that dealers will learn that their competitors usually are just as honest as themselves.

"There are times, with merchants as with nations, when war becomes almost necessary, but we all know what war means, and its definition by a great American soldier who was well acquainted with the subject, that 'war is hell,' should be borne in mind and make us pause and think of the results before we plunge into trade wars or conflicts.

"Exhaust every resource to reach proper and fair understandings. If you have an agreed price with each other in your local sphere of business, stick to it. Let the customer go. If this be mutual you will get the next customer—both have made a sale and each a profit; but cut your price and your neighbor will cut the next time—each has made a sale, but neither a profit. So, when an aggravating case or condition presents itself, or when some one has misrepresented, call on him for explanation, and you will generally find that the explanation can be given; or, if a mistake, due apology can be made, which will restore confidence.

"But if it is an unmistakable case, showing bad faith, declare war; and the hotter the war the sooner peace follows."

WOLFF-AMERICAN,

REGAL and

HOLLAND Bicycles

**Three Excellent Lines—
Each One Complete.**

**If not already represented in your territory,
it will pay you to investigate.**

STEARNS BICYCLE AGENCY,

General Sales Agents,

Syracuse, N. Y., U. S. A.

METHODS OLD AND NEW

**They are Contrasted by an Old-Timer—
How to Stimulate Sales.**

They were talking of the good old days, as they termed them regretfully, and the conversation soon got around to the subject of present selling methods and whether they were better than those of auld lang syne.

"I plump for the old way every time," said the Old Fogey, "and I contend that it did good then and would do good now if it were returned to. We may have gone to the other extreme—talked and argued and wrangled over 'talking points' and everything else connected with the trade; I'll admit that I used to think there was a little too much of it, and that the dealers would have done better by taking better care of the trade they had—but when we stopped it altogether the change was too great and too sudden, and did much harm.

"Take the matter of tires, for example. Nowadays a tire is a tire, and no one cares much about methods of attachment or construction. The average rider wants to buy his tire just as cheaply as he possibly can, and no attempt is made to convince him that one type is better than another."

"But how are you going to prove to him that such is the case?" interposed the Single Tube Man. "If you tell him all about the different kinds you will get him mixed up and he may end by buying the cheapest tire he can find."

"I don't agree with you," replied the first speaker. "It would be more likely to have just the opposite effect. People would get to talking about the different makes, next would have opinions of their own, and then would want to prove them by actual tests. The rider would not rest content until he got his neighbor into the discussion, and so the circle would become wider and wider until it covered the whole cycling sea.

"How did the coaster-brake get its start?" he went on, warming to his subject. "By discussion and agitation, of course. Its advocates were all the time telling what it would do, how it brought a new zest to cycling, obviated the necessity of pedalling down hill and furnished a brake that was always ready and always effective. It was the same way with the cushion frame and the chainless. In fact, it was this discussion that made the pneumatic tire.

"When your people first brought out the single tube tire"—this to the Single Tube Man—"or hosepipe, as it is derisively termed, how did they get a hearing for it? By telling people that your company made it and that it cost so much? Not by a long sight, as you know well.

"You got your hold by demonstrating it, by talking about its good points and by making the most of every advantage scored. And it was the same way with the detachable tire and the cemented-to-the-rim double tube. Each had points of superiority over

its rivals, and the play was to dwell on these and steer as clear as possible of the weak points. The result was that the riders took up the discussion and fought the battles as zealously as the makers themselves could have done.

"Quite different is the method pursued now. Each salesman takes it for granted that everybody knows about the different kinds of tires, and wastes little time in expatiating on their designs. In some sections of the country one type has the call, in another something entirely different finds favor. As a rule, there is a reason—and usually a good one—for this preference; but even then there is some chance of making sales of a rival type, but this is rarely taken advantage of.

"Think the matter over, boys, and see if you don't come 'round to my way of view—



NEW YORK BRANCH: 214-216 WEST 47th ST.
BOSTON BRANCH: 80 BATTERYMARCH ST.,
Near Fort Hill Square.

ing it. I predict that you would stimulate business by such a course, and as that is just what you want to do, why not try it?"

Gas Leaked and Explosion Followed.

Henry Max, a bicycle dealer at Trenton avenue and Hagert street, Philadelphia, began suit last week against the United Gas Improvement Co. in the Common Pleas Court to recover damages for injuries to his stock and property, which, it is alleged, were caused by an explosion of gas on January 27, 1900.

The plaintiff claims that certain of the company's pipes in Hagert street were negligently allowed to remain uninspected for so long a time that they became worn and decayed, permitting large quantities of gas to escape. These vapors permeated the ground, it is charged, and flowed into the cellar of the plaintiff's premises. When the explosion occurred the building and its contents were set on fire, causing a loss of more than \$9,000.

MUFFLERS ARE MANY

But They Differ Widely in Design—Here's a Simple One.

Mufflers there are in plenty—almost as many as there are motors, in fact, and more coming. Each motor builder has ideas of his own on the subject, and he rarely fails to put them into practice.

In spite of the great number of mufflers procurable—and this perhaps explains why so many different ones exist—none of them quite fill the bill. Some mufflers are better than others, but even the best of them leave something to be desired. There is always present the thought that they can be improved, and this spurs on designers to bring out the perfect one, or as near it as it is possible to get.

No one conversant with the subject expects the impossible—i. e., that the noise of the exhaust should be done away with altogether; and this without the slightest particle of back pressure. That would be too much to expect or demand. Instead, designers of mufflers are simply asked to get the closest to these ideal conditions that is possible.

In their construction mufflers vary widely. From the type which consists of a cylinder half full of hickory nuts to the elaborate affair composed of three or four cylinders, one within the other, the scale is run, and the results obtained are not always proportioned to the efforts expended to obtain them. It is sometimes the simplest ones which show up the best.

An example of this is afforded by the muffler used on the Hafelfinger motor, from which less would be expected, from its appearance, than almost any other. It consists of a piece of tubing about three-quarters of an inch in diameter, around which is wound a piece of No. 8 or No. 10 wire. The tube is closed at the further end, and is pierced with about sixty small holes one-eighth of an inch in diameter or less. The wire is wound in tight coils until the end of the tube—which is a foot or more long—is nearly reached, when the coils are much wider apart.

A more unpromising device, judged by the standard set by other forms of mufflers, it would not be easy to find. Yet the results obtained are little short of extraordinary. The noise of the exhaust is reduced to a remarkable degree, and what is heard is of a regular or sustained nature quite different from the sharp, explosive sound usually emitted by mufflers. The effect is more like that of a very gentle buzz, and does not appear to be accompanied by any back pressure whatever.

What magic there could be in this method of construction it is not easy to see. It is, of course, reasonable to suppose that the coiled wire would have the effect of diffusing the sound, and this it certainly seems to do; and it is possible that this is the secret of the matter.

The Retail Record. CHANGES.

Illion, N. Y.—J. H. Harning succeeds F. A. Stubblebein.

Lynn, Mass.—A. F. Stillman, No. 18 Market square, is enlarging his store.

Zanesville, O.—Zanesville Cycle Co., No. 21 S. Fifth street. Roy E. Bennett has purchased an interest and will assume charge.

Middletown, N. Y.—Worcester & Crans, removed to No. 33 West Main street.

Southampton, N. Y.—George D. Grundy has sold repair and sundry business to Merton L. Packard, but will still engage in the sale of bicycles.

Concordia, Kan.—Livingood & Neilson succeed Thomas Livingood.

Webster City, Ia.—Charles W. Neff succeeds Simson Bros.

Mendon, O.—Maurer & Anderson succeed Maurer & Partner.

Greenfield, O.—D. A. La Ferve & Co. succeed La Ferve & Head.

Leipsic, O.—John A. Parsons succeeds Perry & Parsons.

Mt. Vernon, S. D.—Hatch, Arland & Keller Co. succeed Colby & Diel.

Jaspard, Tenn.—Havron Bros. succeed Havron Bros. & Wood.

Springfield, Tenn.—J. W. Bell succeeds Bell & Dowlen Supply Co.

Denton, Tex.—R. S. Taylor & Sons succeed G. W. Wilson & Co.

Sanger, Tex.—R. S. Taylor & Sons succeed G. W. Wilson & Co.

Shipman, Ill.—Meatyard Bros. succeed Irving P. Smith.

Cawker City, Kan.—Garrett & Churchill succeed F. E. Garrett.

Bluffton, Ind.—John Bequest succeeds W. H. Patterson & Co.

Monroe, N. C.—Heath-Lee Hardware Co. succeeds Heath Hardware Co.

Navasota, Tex.—E. L. & G. C. Ahrenbeck succeed Ahrenbeck & Errell.

Highland, Kan.—McCarthy & Joss succeed D. S. Gilmore.

Brook, Ind.—Lyons & Hershman succeed Rich & Lyons.

Morrisonville, Ill.—Bissell Bros., succeed A. B. Bissell.

Grass Valley, Conn.—Bowhill & Smit, dissolved.

Erie, Ill.—James & McCall, dissolved.

Webster City, Ia.—Charles W. Neff, succeeds Simson Bros.

Sidney, O.—Roy Redinbo, succeeds Routson & Emerick.

Boone, Ia.—W. M. Wheelock succeeds Wheelock & Root.

Easton, Ind.—Rich & Clark succeeds E. T. Nicholas.

Ansley, Neb.—M. Gaines succeeds Gaines & Hagin.

Table Rock, Neb.—Frank Kovanda succeeds Andrew & Kovanda.

Red Oak, Ia.—H. R. Christy succeeds C. A. Nelson.

Sidney, O.—McKee & Wilson succeed Gibson & McKee.

Delphos, Kan.—Cassidy & Zimmerman succeed Calenden Bros.

Woodland, Mich.—Seas Bros. succeed Carpenter Bros.

Paris, Tenn.—J. E. Johnson succeeds Johnson & Comsel.

NEW STORE.

Roseburg, Ore.—Elmer Wimberly, repairing.

Marietta, O.—Knox & Henry.

Erie, Pa.—Epp Bros., No. 1,124 State street.

Great Barrington, Mass.—Louis Brusie will add a line of bicycles to his furnishing goods store.

FIRES.

Richwood, O.—F. L. Moffett, loss \$1,000; insured.

Clinton, Ia.—Harry L. Traub, Main street; loss \$100; insured.

Terre Haute, Ind.—Frank Erxleben; loss \$4,000; insured for \$2,000.

MORTGAGES, ETC.

Worcester, Mass.—A. L. Adams, chattel mortgage for \$750, filed.

Chelsea, Mass.—E. Barnard, chattel mortgage for \$150, filed.

Lynn, Mass.—J. Q. Derba, chattel mortgage for \$2,000, filed.

St. Peter, Minn.—R. S. G. Veith, chattel mortgage for \$60, filed.

Recent Incorporations.

Troy, N. Y.—The Sweet-Packard Co., with \$20,000 capital. Will deal in hardware, agricultural implements, sporting goods, bicycles, etc. The officers are: Halbert D. Sweet, president; Harry S. Packard, vice-president; Louis H. Baker, secretary and treasurer.

For Gearing Down.

As the crank shaft of a motor revolves at a much greater speed than the rider of an ordinary bicycle is able to drive his crank shaft, there is no necessity for "gearing up" a motor bicycle at the rear hub when chain gearing is used. In fact, the more usual practice is to gear down in order to keep the speed at a point where the motor will furnish ample power to drive it.

It will readily be seen, therefore, that instead of a big front and small rear sprocket wheel, as with the standard construction, the chain geared motor bicycle requires a rear sprocket having as many teeth at least as the front one; frequently it will have more, especially when the latter is driven directly from the motor shaft.

Given a want of this kind—i. e., for large rear or hub sprockets—it is only a question of time, and usually of very short time, when it will be filled. The Mears New Century Spider, handled by Charles E. Miller, New York, was designed for this especial purpose, and it serves it in a way at once simple and ingenious. It is used to attach to the left hand side of hubs—both those with fixed gears and with coaster-brake devices—and used in conjunction with the regular small sprocket wheel, the latter being geared to the pedal-crank shaft and the former to the motor shaft.

This disk spider is machined to fit over spoke flange on hub, and is securely fastened to flange by six or more bolts, which pass through the spoke holes in the flange. The spider has a shoulder for bolting on sprocket. The sprocket bolts on in the same way and with same bolts or screws used in attaching sprocket to the Fauber crank hanger. The outer edge or rim of spider is 3-16 inch off-set, allowing sufficient room for spoke heads between sprocket and flange, and is drilled regularly, 36 holes.

Armstrong Bros.' big cork factory in Pittsburg was entirely destroyed by fire on Saturday last. It made one of the most spectacular fires that city has seen in years.

Cycle Trades Protective Association.

MEMBERS IN GOOD STANDING JAN. 12, 1901.

Iver Johnson Arms & Cycle Works,	Fitchburg, Mass.
Waltham Mfg. Co.,	Waltham, Mass.
The Crosby Co.,	Buffalo, N. Y.
National Sewing Machine Co.,	Belvidere, Ill.
Great Western Mfg. Co.,	La Porte, Ind.
H. P. Snyder Mfg. Co.,	Little Falls, N. Y.
Syracuse Arms Co.,	Syracuse, N. Y.
Julius Andrae & Sons Co.,	Milwaukee, Wis.
Huntington Mfg. Co.,	Huntington, Ind.
Hoffman Bicycle Co.,	Cleveland, O.
Hendee Mfg. Co.,	Springfield, Mass.
March-Davis Cycle Mfg. Co.,	Chicago, Ill.
Wisconsin Wheel Works,	Racine Junction Wis.
Worcester Ferrule & Mfg. Co.,	Worcester, Mass.
Baldwin Cycle Chain Co.,	Worcester, Mass.
Rochester Cycle Mfg. Co.,	Rochester, N. Y.
Bay State Stamping Co.,	Worcester, Mass.
Troxel Mfg. Co.,	Elyria, O.
Grant Tool Co.,	Cleveland, O.
Peter Forg,	Somerville, Mass.
Henley Bicycle Roller Skate Works,	Richmond, Ind.
Ideal Plating Works,	Boston, Mass.
Milwaukee Cycle Co.,	Milwaukee, Wis.
Aurora Automatic Machinery Co.,	Aurora, Ill.
Toledo Metal Wheel Co.,	Toledo, O.
Fay & Bowen,	Auburn, N. Y.
Hunter Arms Co.,	Syracuse, N. Y.
Arcade File Works,	Anderson, Ind.
The Butler Co.,	Butler, Ind.
Springfield Drop Forging Co.,	Springfield, Mass.
Miami Cycle & Mfg. Co.,	Middletown, O.
Power Mfg. Co.,	Bloomfield, N. J.
FRED. I. JOHNSON, PRESIDENT.	
F. B. ELDREDGE, VICE-PRESIDENT.	
W. H. CROSBY, TREASURER.	
H. P. SNYDER,	
W. M. LEWIS,	
C. H. METZ,	

Board of
Trustees.

S. A. MILES, SECRETARY, 324 Dearborn St., Chicago.

High Grade TIRES at Low Prices.



Tip Top Tires, per pair,	\$2.25
New Brunswick Meteor,	
1 5-8 only, per pair,	3.00
X Star X Tires, Mfd by	
Goodyear, per pair,	2.35
Lexington Tires, 28 x 1-2 and	
1 5-8, Mfd by Hartford	
Rubber Works, per pair,	3.00
Diamond XX Tires, per pair,	2.35
Leader Hubs, per pair,	1.25
Brilliant Gas Lamps, each,	1.00
Genil Oil Lamp, each,	.55
Fine Inner Tubes, each,	.50

We have in stock all makes of TIRES, such as Hartfords, Goodrich, Morgan & Wright, Palmer and G & J. Also a full line of Sundries and Tools. Send for our 1901 Illustrated Catalogue.

BROADWAY BICYCLE & SUNDRY MFG. CO.,

7 and 9 Warren St., near Broadway, New York.



THERE'S REAL COMFORT
IN THE REEVE'S

Ideal Spring Seat Post.

It relieves all jolts and jars, and converts any Bicycle, new or old, into a Cushion Frame. Fits any wheel. Sent prepaid to any address on receipt of \$1.75. Money back after three days' trial if you want it. Send size of present post.

D. E. ORVIS & CO., 71 E. Genesee St. Buffalo, N. Y.

Reference: Buffalo Commercial Bank.

Dealers send for Circular and Wholesale Price List.

OPENINGS FOR OILS

Increasing use of Motors Carries Opportunities in its Train.

Oils for lubricating purposes afford an interesting study, and one that will amply repay the delver into the subject.

In the early days of the bicycle, when nothing was too good—or high-priced—to be used on it, lubricants especially prepared for ball bearings found a ready sale. They bore an affinity to sewing machine oils—the latter being frequently used for the purpose when the regular bicycle oil was not at hand or procurable—and even to the later and more costly typewriter oils.

Some riders had an idea that the latter was better than the variety sold under the name of bicycle oil, and did not hesitate to invest in the little bottles which retailed originally for 25 cents. Whether they obtained any marked advantage thereby is open to a great deal of doubt.

In the course of time the high priced bicycle oils fell into some disfavor, being displaced by the 10 cent bottles bearing a suspicious resemblance to sewing machine oil, but marked for bicycle use, and labelled with all sorts of indefinite and fanciful designs and names. These were sold to dealers all over the country at exceedingly low net prices; and the latter, in turn, strove to foist them upon the riding public, succeeding to a considerable extent.

After taking a back seat for a considerable time, people who made the better class of oils woke up and met, or nearly met, their competitors on price. The result was that they got much of their trade back, and today such concerns as Nye and Cole have their goods on the shelves of dealers who a few years ago would not stock anything but the lowest priced oils.

With the introduction of the chainless machine there arose a demand for an oil especially adapted for the lubrication of their gears. As being intended for heavier work than the ordinary bicycle oils, such lubricants are of such consistency that they will always flow among the teeth of the gears and at the same time are sufficiently heavy not to leak out around the cases.

Now that motors have appeared on the scene, new demands have been made on the oil compounders. For lubricating the working parts of the motor they put up an oil which is so prepared that it does not leave a deposit of carbonaceous matter upon the interior of the cylinder, which is such a severe obstacle to the proper running of the engine. It cannot burn except at a very high temperature, nor chill at a correspondingly low one.

Its viscosity is such that so great a reduction will not take place under the action of heat as to impair its lubricating efficiency, thus assuring perfect lubrication even under

the great heat generated by the engine when running at high speed.

For lubricating the gears used on tricycles and other forms of motor vehicles a heavier oil or grease is required. It should be thin enough to flow readily among the teeth of the gears, while being of such consistency that it will not fly off when the gears revolve.

Particularly timely also is an oil which has appeared designed to stand a temperature of zero without freezing. It is of such weight that it is suitable for either light or heavy bearings. It will stand a temperature of zero (Fahrenheit) without congealing, and will flow as readily and lubricate as well at that temperature as in warm weather.

Metz Patents a Motor Abroad.

An English patent has been granted to C. H. Metz, of the Waltham Mfg. Co., for a double-cylinder, air-cooling gas engine. This engine, writes Mr. Metz, is only in an experimental stage, and upon the result of the severe tests it is now being subjected to will depend whether or not it will be used.

The engine is described as being one working on the four-stroke cycle principle, in which the first force of the explosion is balanced between a plurality of pistons working in unison, and the cylinders and combustion chamber have been so designed that the greatest dissipation of heat is effected as soon as the work of the charge has been accomplished.

The engine is of the four-cycle type, the pistons working in unison and compressing the charge into one combustion chamber; only one inlet and one exhaust are used for the two cylinders. The inlet valve operates automatically, while the exhaust valve is lifted by a cam on the usual two-to-one gear. An electrical igniting device is also shown which is operated by a cam and lever on the two-to-one gear. Any number of cylinders may be used.

Tricks with Old Tires.

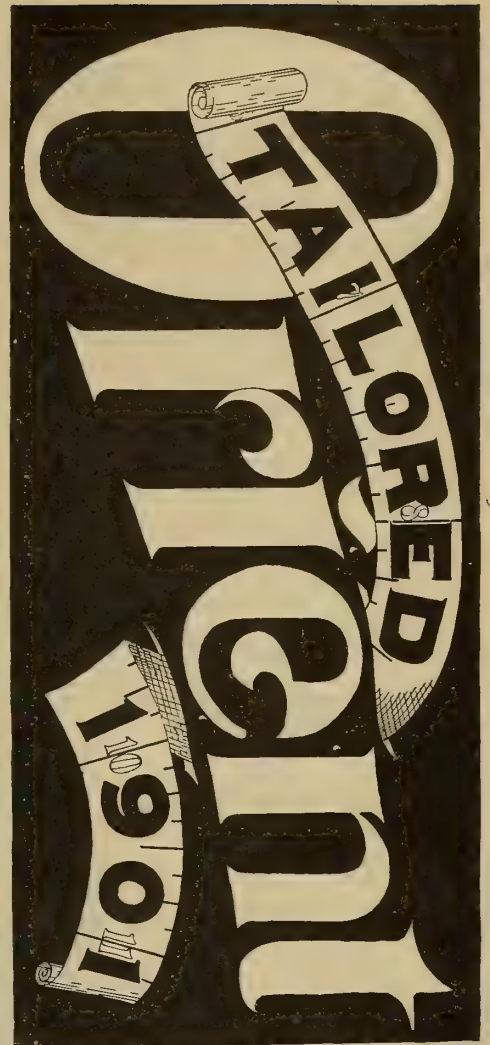
There were two of them in the party around the table. They had drifted from the bicycle business into the automobile trade, and when some one called up the former the talk drifted to some of the "tricks of the trade" with second-hand bicycles.

One of the ex-bicycle dealers remarked how he had painted old tires until they resembled new ones.

"That was a crude idea," interjected the other one. "I treated them in a fashion that did not give the game away so quickly. I sandpapered the old tires and then rubbed them with chalk. It made them look almost as good as new, and is a trick worth knowing."

"I never used sandpaper on tires," rejoined No. 1, "but one reason why I liked composition grips was because you could sandpaper them and make them as good as new. Cork grips, though, wouldn't stand it."

Just then the arrival of a couple of newcomers broke up the talk and changed it into other channels.



THE NEW PHOENIX THAT HAS ARISEN FROM THE ASHES OF HIGH GEAR EXPERIMENT. THE ONLY MADE-TO-MEASURE MACHINE ON THE MARKET.

Here is the line of 1901 Orients now ready for February assignments:

ORIENT LEADER

in male and female models.

TAILORED ORIENT

made to measure for individual requirements.

ORIENT MILAMINIT

for the race winners.

CHAINLESS ORIENT

for both men and women.

ORIENT MOTOR BICYCLE

for past masters in cycling.

All combined with Cushion Frames and Coaster Brakes—if you say so.

WALTHAM MFG. CO.,
Waltham, Mass.

The Week's Patents.

666,679. Velocipede Pedal. Otto Kraus, New York, N. Y., assignor to the Stearns Bicycle Agency, Syracuse, N. Y. Filed Oct. 7, 1897. Serial No. 654,407. (No model.)

666,725. Rubber Tire for Vehicle Wheels. Rollin B. Woodruff, New Haven, Conn. Filed Nov. 14, 1900. Serial No. 36,488. (No model.)

666,824. Valve for Pneumatic Tires. Lyman T. Smith, New Haven, Conn. Filed June 9, 1900. Serial No. 19,699. (No model.)

666,837. Cycle. Rudolf Wittmann, New York, N. Y. Filed July 13, 1899. Serial No. 723,733. (No model.)

667,062. Motor Cycle. Chester E. Clemens, Springfield, Mass., assignor of one-half to William C. Brown, same place. Filed May 7, 1900. Serial No. 15,794. (No model.)

667,063. Adjustable Ball Bearing Axle. Addison J. Clevenger, Ontario, N. Y. Filed Feb. 14, 1900. Serial No. 5,127. (No model.)

667,171. Bicycle. Christian Christensen, Denver, Col. Filed Aug. 20, 1900. Serial No. 27,407. (No model.)

"Motocycles and How to Manage Them." The name explains the nature of the book. Price 75 cents. For sale by The Goodman Company. . . .

Now Easy to Adjust.

When chainless gears first came on the market one of their most annoying features was the difficulty attending their adjustment or assembling.

Few riders, even if they were of a mechanical turn of mind, cared to essay either task. Even repairers had no hankering after work of this character, some of them refusing it altogether, while others took the more sensible course of making a study of the subject, and thus fitting themselves to handle intelligently any jobs of this character which might be brought in to them.

Since 1897, however, when chainless machines were first marketed, the gears have undergone wonderful improvement in these as well as other respects. In no way can this be better shown than by quoting the Riggs-Spencer Co. on the adjustment of their Sager gears.

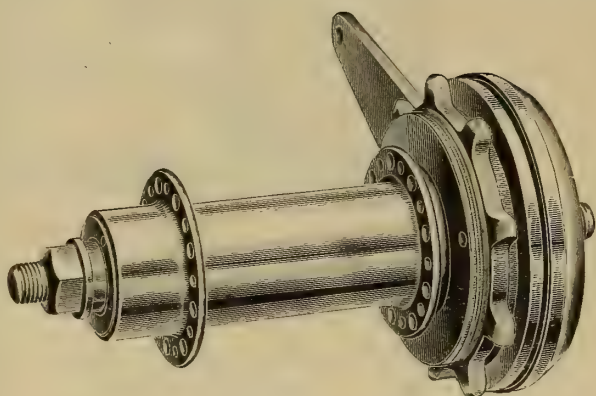
"We are enabled," they say, "to furnish a mechanism from which to build a chainless bicycle closely approaching the chain machine in simplicity. When it is understood that the rear-wheel transmission shaft, with its casing and bearings complete, the cranks and the front driving gear may all be removed from the frame, making every

essential part of the mechanism accessible, and that these parts may all be reassembled into their respective positions without having disturbed any of the gear adjustments, and but that of a single bearing, we believe our claims will be acknowledged.

"The only bearing disturbed in this operation is that of the crank hanger, which is a simple adjustment of an ordinary ball bearing and is easily accessible. The rear wheel may be removed and replaced in a bicycle built from our fittings with less effort than is required to accomplish the same operation in any chain machine, requiring the removal and replacement of but three nuts, the adjustment of neither the gear nor bearing having been disturbed."

\$30.00 Chicago to Portland, Seattle, Tacoma and North Pacific Coast.

Via Chicago & North-Western Railway, optional routes via St. Paul or Omaha. Tickets on sale each Tuesday, February 12 to April 30. Shortest time en route. Finest scenery. Daily tourist car; excursions personally conducted semi-weekly. For tickets, illustrated pamphlets and full information inquire of nearest ticket agent or address Chicago & North-Western R'y, 301 Main street, Buffalo, N. Y. ***



THE "E. Z." COASTER BRAKE NO. 2.

Manufactured by

REED & CURTIS MACHINE SCREW CO.,
WORCESTER, MASS.

TO WHOM IT MAY CONCERN:

This is to certify that we have taken a license from the original inventor and patentee, Edward E. Ziegler, of Philadelphia, to manufacture the Coaster Brake shown herewith. We are the only ones authorized to make and sell this Coaster Brake in the United States, and all other parties making and offering such an article for sale are infringing our rights.

Yours truly,

REED & CURTIS MACHINE SCREW CO.

We would be pleased to have you catalogue this Brake, and can take care of you to your satisfaction.

WRITE FOR CATALOGUE "C."

TALKING

OF

TIRES,

If you would be



, it would be a

mighty good idea to get our figures, they are money-savers.

INTERNATIONAL A & V TIRE COMPANY,

346 BROADWAY, NEW YORK.



Two
Handy
and
Clean
Methods
of
Using
Graphite

SHOP SIZE.

P. M. is made of 97 per cent. pure Graphite and Oil

It will not heat or gum in engine cylinders and lubricates them perfectly.

It deposits Graphite on axles, gears and bearings, and on the chain surface and its rivets and *it stays there.*

Does not collect dust.

G. W. COLE CO., New York, N. Y.
Gentlemen:—

I have tried your Pacemaker gear and chain lubricant and honestly think it is the very best preparation which I have ever used for the chain.
Yours truly,
H. A. CANFIELD.

St. Louis, Mo.
State Centurion, Century Road Club.

G. W. COLE CO.,

Makers of the famous

3 in One

141 Broadway, NEW YORK, N.Y.

Send for Catalog No. 10.

On Extending Credit.

While there are many men looking for credit who are not entitled to it, says a prominent credit man, yet there are many others who will in time prove desirable customers, provided they are started in the right way. They have perhaps a small capital, but are honest in their intentions. Such dealers we like to have on our books, provided we do not have to take too great a risk at the beginning.

One of the most difficult things which a credit man has to do is to gracefully turn down a concern starting in business and wishing to secure a line of credit. A man who is to open a new store comes into our place of business and buys a bill of goods. When he is referred to me I endeavor to obtain from him a full and complete statement of his affairs, and at the same time to give him thoroughly courteous treatment. Before the goods are put up it is frequently necessary, in case of a new customer, to require of him that we shall receive the whole or a portion of the purchase money before the goods are shipped.

If, after I have looked up a party, his account is not, in my opinion, a desirable one, I have to tell him so, if possible, without offending him. I find, after long experience, that it is best to write a matter like that rather than to say it. Accordingly when I have a duty of that kind to perform I usually tell the dealer that I shall communicate my decision to him in the course of a day or two. The letter which I write is quite brief and to the point, and, of course, ends the matter so far as we are concerned.

As one Salesman Views it.

Alleged interviews with bicycle salesmen reported in the country press are not always to be taken without the proverbial grain of salt, but the following from a Torrington (Conn.) paper has more of a genuine look than is usual:

"Bicycles salesmen are coming in from their trips," it says, "and they are unanimous in saying that they look for a positive revival in wheeling with the opening of the spring outdoor riding season. One of these men, who has been in close touch with the trade for years, when seen, said:

"I have travelled through the West and South in the last two months, and have met many others in my line who have toured other sections of the country. It has been the experience of all that the dealers in both large and small cities have given their orders for the new models with less hesitancy than they have done before in the last two years.

"I stopped over at the Cycle Show now running in Philadelphia, and was surprised to see the interest manifested. I consider the revival of interest in Philadelphia most pronounced. One prominent dealer told me that he had received orders for new mounts from a dozen men and women who were customers of his several years ago, but he had heard nothing from them for the last two years."

Of the several \$25 bicycles in evidence [at the cycle show] none could hold a candle to the Hendee Mfg. Co.'s Indian. Better value for the money has not been offered for many a day. The wheel is not only well made, of unquestionable material, but is well equipped and superbly finished, and a year's guarantee "does the rest." The Indian puts not a few of the higher priced machines to blush.—The Bicycling World, Jan. 24.

That
ought to be

enough to
cause every
wide-awake
agent to
write us.



\$25. \$30. \$35.

See That Motor

IN THE

KEATING MOTOR CYCLE

See That Curve

IN THE

KEATING MODEL 90

Keating Mattabesett No. 2

A high grade wheel at a low
grade price.

WRITE FOR AGENT'S PRICES.

Keating Wheel and Automobile Co.,

Middletown, Conn.

Last Week's Exports.

Substantial shipments abroad were the rule during the week ending Feb. 5, 1901. Hamburg took the heaviest consignment; Copenhagen's was not very much lighter, while Rotterdam and British Africa were likewise conspicuous. The record in detail follows:

Antwerp—2 cases bicycles, \$100; 29 cases bicycle material, \$740.

Amsterdam—2 cases bicycle material, \$22.

Argentine Republic—3 cases bicycle material, \$497.

British Possessions in Africa—33 cases bicycles and material, \$3,251.

British Australia—1 case bicycles, \$75.

British Guiana—1 case bicycles, \$60.

Bremen—2 cases bicycles, \$50; 5 cases bicycle material, \$150.

British West Indies—15 cases bicycles and material, \$403.

British East Indies—6 cases bicycles and parts, \$829.

Chili—2 cases bicycles and material, \$103.

Copenhagen—505 cases bicycles, \$6,175; 18 cases bicycle material, \$1,215.

Christiania—1 case bicycles, \$25.

Cuba—12 cases bicycle material, \$502.

Dutch East Indies—5 cases bicycle material, \$492.

Dutch Guiana—10 cases bicycles and parts, \$149.

Ecuador—1 case bicycles, \$53.

Glasgow—15 cases bicycle material, \$778.

Gamla Carleby—1 case bicycles, \$25.

Genoa—2 cases bicycles, \$50; 14 cases bicycle material, \$495.

Geneva—1 case bicycles, \$25.

Ghent—3 cases bicycles, \$75.

Hull—2 cases bicycle material, \$160.

Hamburg—392 cases bicycles, \$6,599; 66 cases bicycle material, \$4,021.

Havre—3 cases bicycles, \$125; 69 cases bicycle material, \$660.

London—18 cases bicycle material, \$709.

Liverpool—29 cases bicycles, \$1,137; 12 cases bicycle material, \$1,095.

Rotterdam—143 cases bicycles and material, \$4,009.

Southampton—2 cases bicycles, \$75; 3 cases bicycle material, \$50.

Stockholm—1 case bicycles, \$50; 1 case bicycle material, \$60.

Directory Promised in February.

The 1901 edition of the National Bicycle and Automobile Directory is promised for delivery this month, corrected to the last minute. New firms should send in names, location and character of business at once in order to be listed. The book will be thorough and complete. The first part of the book will be devoted to the bicycle trade and the remainder to the automobile field.—Paul Mensch & Co., Publishers, 92-94 La Salle street, Chicago. ***

Fifteen metal polishers and buffers of the Chicago Handle Bar Co., Chicago, Ill., went on strike last week in consequence of a dispute over wages.

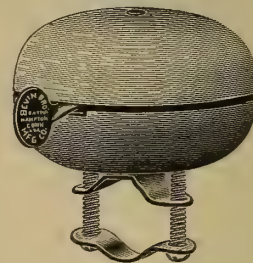
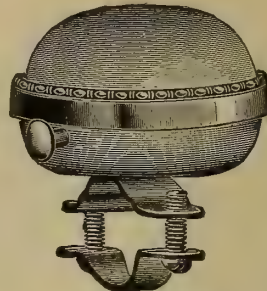
Charles Henshaw, the old racing man and motor tandem expert, has gone on the road for the E. R. Thomas Motor Co.

OUR SHOW-

ing of bells, lamp brackets, toe clips, trouser guards and the like

IS SO ATTRACTIVE

in price, quality, appearance and variety that there are few in the trade whom we have not pleased or who we cannot please if given the opportunity.



Have YOU obtained catalog and quotations?

BEVIN BROS. MFG. CO., EAST HAMPTON, CONN.

(Business founded 1832.)

16,400

SETS

Kangaroo
Tires

From 1-3 to 1-2 less than
regular wholesale prices.

The best tire proposition
of the year.

7,000

SETS

No. 66
Fisk Tires

At 1-2 factory wholesale
prices. Write quick
for quotations.

Tires are going up; if you
wait you will be sorry.

A complete line of Sundries and
Fittings at lowest prices.

Good treatment and right prices
to all.

**Boston
Cycle & Sundry Co.,**

J. M. LINSOTT, Mgr.

7 Hanover Street,

BOSTON, MASS.

As to Stale Gasolene.

Beware of stale gasolene, says a motorcyclist of experience. It is an unmitigated nuisance, unreliable as to mixture and inefficient in power. In the surface carbureters one always has stale gasolene more or less, and, of course, the best thing to do is only to put in as much spirit as you know will be consumed in one ride. Should there be a residue, it is best to empty it out and keep it for cleaning purposes. Never take it for granted that the gasolene you buy is fresh; test it for yourself, and then you will know.

I believe the day is coming when some more stable spirit than at present used will be adopted, and then, of course, the specific gravity is not likely to vary; but at present we must be content to adopt all precautions to reduce the chances of things going wrong.

Always carry a densimeter, but remember that if you draw some gasolene from the bottom of a De Dion pattern carburetter it probably will not show the same density as some drawn from the top. This is especially the case when fresh spirit has been added to stale. Agitating the brass tube attached to the baffle plate will only temporarily mix new and stale spirit. A lot depends on the nature of the igniting spark as to the exact degree of density which will work in a motor, and a great deal also depends on the type of carburetter.

Vibration Destroyers.

At first sight it would seem as if the greatly increased popularity of cushion frame bicycles would check any movement toward larger tires which might be about to materialize. The cushion frame lessens vibration; consequently there is the less need of larger tires, which are but another step in the same direction.

But such a theory will not bear very close scrutiny. If past experience goes for anything, it will be found that the adoption of one anti-vibration device will almost certainly lead to a demand for another one.

If the cushion frame alone is good—if it kills part of the vibration so bitterly complained of—the cushion frame plus larger tires will be still better.

And the matter will not end there. Spring saddles, spring front forks or handle bars—all will come in for a share of popularity, simply because they will be classed as anti-vibration devices.

In the case of larger tires there is as yet, as has been frequently remarked, not the slightest sign of such a demand. Trade and public appear to be a unit in approving the present sizes, and as long as this feeling prevails there is little chance of there being any reaction from the extremely small sizes which now prevail.

Sylvester has a Motor.

W. E. Sylvester, of East Weymouth, Mass., is an addition to the long list of builders of experimental motor bicycles. He is building a machine which is to be equipped with a 4 horsepower motor, and is expected to run more than thirty miles an hour.

February 14
St. Valentine's Day

Let an
Elfin Agent
present you
with an
Elfin Agency

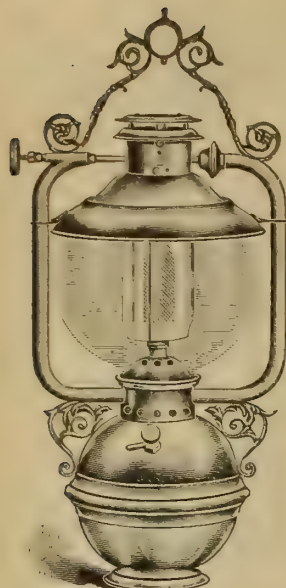
Our men are now out placing the 1901 Elfins, and, though Elfin Agencies do not go begging for the leading dealers in most towns handle them, we urge you not to longer be one of the "exceptions that prove the rule," but to fall in line with the rest. You will then be able to boast of having the

Standard
Juvenile
Bicycle
Of the World

The shadow of a doubt does not rest upon this statement. The bicycle with its fine construction and finish, and its Reversible Crank Bracket and Easy Chain Adjustment speaks for itself.

Let one of our agents show you the Wheel. Write for his visit.

Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.



Outdoor.

THE NULITE

750 CANDLE POWER

ARC ILLUMINATORS

Produce the finest artificial light in the world.
SUPERIOR TO ELECTRICITY OR GAS
CHEAPER THAN KEROSENE OIL

A 20th Century Revolution in the Art of Lighting.

They darkness into daylight turn,
And air instead of money burn.

No Smoke. No Odor. No Noise. Absolutely Safe.

They are portable. Hang them anywhere.

WE ALSO MANUFACTURE

TABLE LAMPS, PENDANTS, WALL LAMPS,
CHANDELIERS, STREET LAMPS, ETC.

The BEST and only successful

Incandescent Vapor Gas Lamps

made. They sell at sight. Nothing like them

A SNAP FOR BICYCLE DEALERS.

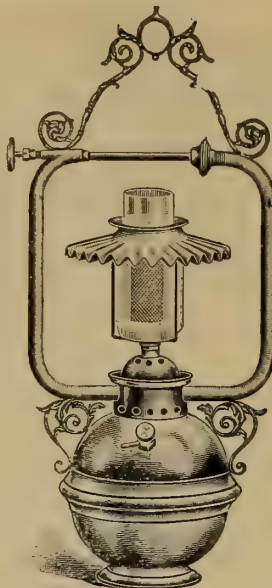
Agents wanted everywhere.

Write for catalogue and prices.

CHICAGO SOLAR LIGHT CO.,

56 FIFTH AVE.,

CHICAGO, ILL.



Indoor.



HERE IT IS!

The Melvin
Automatic
Coaster
and Brake.

Thoroughly reliable, having been
tested for two seasons.

Write for
catalogue and
prices.

F. M. SMITH & BRO., - St. Paul, Minn.

GASOLINE MOTORS

FOR

Bicycles, Vehicles and Launches

AIR COOLED AND WATER JACKETED

ACCESSORIES AND PARTS

ALSO

Complete Sets of Castings and Working Drawings

LOWELL MODEL CO.

Box 292 LOWELL, MASS.

All American wheelmen who desire to keep themselves
posted upon matters concerning the cycle in Europe, its trade,
mechanics, and sport, should subscribe to

THE CYCLIST

AND BICYCLING AND TRICYCLING TRADES REVIEW.

The only recognized authority of English trade and manufac-
ture. Sent post free to any part of America for one year, \$3.25.
American manufacturers having novelties in machines or sun-
dries to introduce should advertise in

THE CYCLIST.

Terms on application to

LIFFE SONS & STURMEY, Ltd.,
19 Hertford Street, Coventry, England.

Members of the American Trade, visiting England are invited to
call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street,
Ludgate Circus, London, E. C.

HIGH GRADE

wheels must have the
best equipments.

There is nothing that gives more value for
the money than the use of the

MORSE TWIN
ROLLER CHAIN

NOISELESS IN MUD, WATER OR
DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless
Rocker Joints. Insist on having the
Morse Twin Roller. Fits regular
sprockets.

Send for Catalogue and
Trade Price to

Morse Chain Co., Trumansburg, N. Y.

EXPORT TRADE.

Advertiser, hereafter residing abroad, good busi-
ness man, highly recommended, with established
business connections with prominent firms of high
est standing in England, Germany, France and
Austria, will introduce American reliable Manu-
facturers to Ar. Buyers in Europe. Terms, if
mutually satisfactory, can be made strictly on com-
mission basis. Address, WESTERN, 126 Liberty
Street, New York.

SARTUS
BALL RETAINER
(The Original)

BEST ANTI-FRICTION.

618 BROADWAY, NEW YORK.

20th Century OIL and
GAS
Bicycle, Driving and Automobile
HEAD-LIGHTS.

For sale by all jobbers and dealers.
20th Century brand of Carbide.

WANTS AND FOR SALE.

15 cents per line of seven words.

WANTED.—Cyclometers, lamps, bells, tool
bags, foot pumps, trouser guards and other sundries
and equipment. Large lots preferred. Spot cash.
MEAD CYCLE CO., Chicago



THE NEW "AUTO" BICYCLE PUMP.

Patented Oct. 9th, 1900. The barrel is 15 inches long and 1
inch in diameter. Will inflate the heaviest automobile tire.
Provided with our patented air tight swivel. Has solid base
and will stand alone. The finest and strongest pump made.
Sample sent on approval. Electrotypes for catalogues furnished
free. Handled by all jobbers. Mention this paper.

D. B. SMITH & CO., Utica, N. Y., U. S. A.

G & J TIRES DETACHABLE
DOUBLE TUBE

Made from the best materials; constructed on correct
mechanical principles; so simple to handle that any
novice can easily make a roadside repair. They satisfy
the rider—and satisfied customers make a satisfac-
tory business.

G & J TIRE CO., Indianapolis, Ind.

L. R. HALL

Enameling and Nickeling Co.

ENAMELING, NICKEL-PLATING

and VULCANIZING for the trade.

Carriage Tires
Our Specialty.4 PORTLAND STREET
BOSTON.

HAND AND FOOT PUMPS,

Oilers, Repair Tools,
Valves, Name-plates, etc.

Spelter Solder

Sheet Brass,
Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn.
Depots: 210 Lake St., Chicago.
423 Broome St., New York.

The "FLEMING" Motor
LEADS.

Use it
on your
Motor-cycle.

Fleming Mfg. Co.,

93-95 Elizabeth St., New York, U. S. A.



The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., February 21, 1901.

No. 21

GASOLENE'S VICTORY

Both Houses of Congress Pass the Bill Which the President Will Surely Sign.

With a rush and a whiz the gasoline-ou-ferries bill, as it has come to be popularly termed, has passed both houses of Congress and is now in the hands of the President for signature.

Introduced in the Senate on January 7 by Senator Platt, of New York, the bill owes its rapid advancement in great measure to his skillful piloting through the dangerous rapids and shoals which lay in its course. Several amendments were made, but no opposition was encountered, and from start to finish the bill met with nothing but good will.

In its final form it is as follows, the concluding paragraph being an amendment offered by Senator Gallinger, of New Hampshire:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section forty-four hundred and seventy-two of the Revised Statutes be amended by adding thereto, at the end of said section, the following:

Nothing in the foregoing or following sections of this Act shall prohibit the transportation by steam vessels of gasoline or any of the products of petroleum when carried by motor vehicles (commonly known as automobiles) using the same as a source of motive power:

Provided, however, That all fire, if any, in such vehicles or automobiles be extinguished before entering the said vessel and that the same be not relighted until after said vehicle shall have left the same:

Provided, further, That any owner, master, agent, or other person having charge of passenger steam vessels shall have the right to refuse to transport automobile vehicles the tanks of which contain gasoline, naphtha, or other dangerous burning fluids.

The bill was prepared by the law committee of the Automobile Club of America, and the good offices of Senator Platt were easily secured. The only danger feared was that owing to the shortness of the present session of Congress the bill would not receive consideration at the hands of both houses. Particularly was this felt to be true

of the lower house, and on it was concentrated the pressure brought to bear both by the Automobile Club and the Associated American Motocyclists, which was appealed to for help.

The latter organization heartily approved the bill from its inception, and appealed to its members throughout the country to make personal or written appeals to their Congressmen to support the measure. This undoubtedly had a good effect, a number of positive promises having been secured.

Another thing that helped the measure was the attitude of the various transportation companies affected by it. Had they been hostile the bill might easily have been blocked. But instead they favored it, being impelled to this action by a desire to acquire the business which would accrue to them through its passage, and by a sense of the trouble imposed on their employees under the present system owing to the necessity for the examination of every gasoline vehicle offered them for transport.

Georgia Tax Repealed.

Although the fact is not generally known, the State of Georgia no longer imposes a tax on bicycle manufacturers doing business in the State.

The Legislature at its last session repealed the law imposing the tax, but in some way the news appears not to have been published.

When the Legislature was in session it was known and stated that a bill was in the mill, not only continuing the tax of \$100 on manufacturers, but adding a tax of \$10 on the dealers.

Who or what was responsible for the about face is not known, but at any rate the tax on the makers was repealed, and in lieu thereof a tax of \$10 placed "for each place of business upon every dealer selling or dealing in bicycles, either at wholesale or retail or upon commission."

In a communication to the Bicycling World the Attorney General of the State confirms the information.

The substitute law is not, however, meeting with any more favor than the original measure. The bicycle dealers very properly cannot see the justice of an act which mulcts them, but allows dealers in other and not wholly dissimilar wares to go untaxed,

EXPORT COMPARISONS

Lion's Share of Trade Still Ours—Rise and Fall of the Business.

Figures now available show a falling off during the year 1900 of \$654,595 in Great Britain's cycle export trade.

The total for 1899 was £662,108, as against £531,169 for 1900.

The record of the United States's foreign trade during the corresponding periods are such as will afford the Britons some consolation.

During 1899 the United States exported bicycles to the value of \$4,820,284, as against \$3,061,061 during 1900, a decrease of \$1,759,223. Thus this country's losses were \$1,104,628 greater than England's, while the latter's total exports were valued at but \$406,216 less than ours.

Comparison of the records of 1899 shows the difference in our favor to have been \$1,489,344; England's exports were valued at \$3,330,940, and America's at \$4,820,284.

The comparison of the rise and fall of the exports of the two countries affords an interesting study. America's trade only attained great volume in 1896, no record having been kept until that time. The records are:

Year.	England.	United States.
1892.....	\$4,579,280	_____
1893.....	5,166,980	_____
1894.....	6,004,565	_____
1895.....	6,969,050	_____
1896.....	9,278,020	\$1,898,012
1897.....	7,151,600	6,902,736
1898.....	4,804,695	7,092,197
1899.....	3,330,940	4,820,284
1900.....	2,755,845	3,061,061

Marysville Gets the Admiral.

Rumors that a bicycle lamp industry was about to locate at Marysville, O., took definite shape last week, when the Admiral Lamp Co., of Columbus, O., signed a contract with the Building Commission of that place. The condition of the contract is that a building will be furnished the company free, and work on it will commence at once.

The Admiral Lamp Co. is managed at present by the following officers: E. B. Thomas, president; Milton N. Grant, secretary and treasurer; Charles C. Armstrong, manager.

BRITONS ARE PERJUDICED

Open Confession That That's Why Even Their Commercial Instinct is Dulled.

London, Feb. 27.

While the bad weather continues there is not much chance of being able to judge of the capabilities of the motor bicycle. Under the present condition of the roads such a type of machine is without doubt dangerous, and it will not be until late in the spring, when dry roads usually prevail, that there will be any chance of really estimating the amount of demand likely for cycles of this class. The Singer Cycle Co., Ltd., are building a considerable number of the pattern they exhibited at the National Show, and already several of these have been sold to private buyers, which makes it appear that there may be a small trade in motor bicycles next summer, but I cannot say that I think it likely that any great amount of business will be done with these machines for the next twelve months in any case. I speak thus plainly in the best interests of American dealers and manufacturers who may be thinking of shipping such cycles to this country. There is no gainsaying the fact that there is an immense amount of prejudice against two-wheeled motors, and even supposing that the machines really prove satisfactory, this prejudice will take time to overcome, and during that time will limit the trade to a very considerable extent. Prejudice means a great deal in this country, and it has to be faced.

A friend of mine has been experimenting with the new "Brissard Culasse" water cooled combustion chamber, which is designed to replace the ordinary combustion chamber and head of the usual type of air-cooled De Dion motor. The thing is being marketed here by the United Motor Industries, Ltd., of Holborn Viaduct, and is meeting with a considerable amount of success. The circulation is extremely well arranged, the water passing round both the inlet and exhaust valves; and, moreover, there is plenty of space for it. With some of the high speed, water cooled motors, the water jacket is so small that the volume surrounding the valves is practically useless. My friend tells me that he has found that the "Brissard Culasse" has made a wonderful difference in the running of his motor, more especially after the engine has been at work for some time. Under these circumstances, the power is maintained at its maximum for a much longer period, and he is inclined to think that the energy developed is always rather greater than was that of the motor when fitted with the ordinary head. I have not yet had a practical trial on the machine myself, but I should say that his deductions are correct.

Not a few motocyclists yearning for extra

speed are altering the silencers of their machines by drilling more holes and enlarging those originally bored. Naturally, this means less resistance, but it practically renders the silencer, as such, next to useless. There will be trouble on this account when the fine weather comes, as the noise which some of these altered cycles make is truly awful. It frightens horses and does the cause a great deal of harm. I fancy that a good deal of the drawbacks of existing silencers, so far as choking the exhaust is concerned, would be done away with if the boxes employed were larger. It seems to me that the spent gases should be allowed to expand as rapidly as possible in a comparatively large space, and allowed to escape thence through the ordinary type of silencer. By this means the escape would be regular, whereas it now comes in puffs, and the exhaust is more or less choked in consequence. In any case it is quite clear that any plan which tends to increase the noise caused by a motorcycle must be discouraged. Altering or dispensing with silencers may be all very well for racing on tracks, but will not be tolerated on public roads!

Farrell's compression tap, in which a tube is carried from the tap to the exhaust silencer, so that the hissing noise is done away with when the tap is open, seems to be gaining favor. I have seen several motor tricycles so fitted, and it is remarkable to note the ease with which these machines are started. The tap, it will be remembered, has a non-return valve, so that, although it allows the compression to escape, yet it insures a proper mixture when the piston commences to descend. I have seen two or three adaptations of this lately, wherein a non-return valve is fitted to the nozzle of the ordinary compression tap, which arrangement gives the same result so far as ease in starting is concerned, but does not reduce the noise made when the tap is open. Nevertheless, these taps find favor, more especially in cold weather, when the difficulty of starting is greatly increased.

Three separate inventions have been submitted to my inspection during the last week, all aiming at rendering a motor tire unpuncturable. The Echo band, to which I referred a short time since, seems to me to be much the best so far, but personally I hardly think that motor tires give much trouble owing to punctures. The real bother comes in by the actual wearing which the covers get, and I do not see that any internal bands can alter this. The rolling to which the tires of motor tricycles and quads are exposed is the real cause of most of the tire failures, and the puncture demon only occasionally gives trouble.

Toledo's Proposed Opening.

Toledo (Ohio) dealers are considering the holding of a local bicycle show. The plan involves the formation of an association to arrange for a show, to be held about the middle of March.

MAKING VIBRATION USEFUL

Here's a Device Designed to use it as a Propelling Power.

Australia has contributed little if anything to the fund of cycling invention, but the device that is now being exploited in Melbourne more than makes up for its shortcomings in this regard.

While America and England are seeking to kill off vibration this Australian invention is designed to use the vibration as a propelling power. It is the invention of one George Brougham Hubert Austin, and although a \$30,000 company has been organized to work it, the prospectus gives no detail of the device, which appears to be enclosed in a small case at the crank bracket joint. Here is what the prospectus says of it:

"This invention, which illustrates a propelling power outside that of the cyclist's legs and is demonstrable by the pressure of the hand on the saddle, is designed to utilize the cyclist's weight in assisting the propulsion of the machine, more especially on rough roads, where the rider is bumped up and down, or when starting off; also when it is practicable for the cyclist to raise or lower himself upon the saddle at intervals, as for instance, when ascending hills.

"The mechanism employed is so arranged that however small the rise or fall of the rider's body may be, the mechanism, which is operated from the saddle, immediately assists in propelling the pedals independently of the feet; even a vibration as small as $\frac{1}{8}$ -second, it is clearly shown, may in future be made use of as a propelling power, while at no time does a rider have to rise more than $\frac{3}{4}$ -second to assist his pedal one-third revolution of circle.

"Another feature of this invention is, that even when no spring is used in the saddle, great comfort is gained, the rider's weight falling upon the operating mechanism, all sudden jars thus become an impossibility, the mechanism being designed to give an action similar to that of the human foot when pedalling. It will be seen that by doing away with the jar on the saddle a great saving of wear and tear is effected on the machine, as the breaking of springs on present machines is a constant source of annoyance and expense to riders.

"The leading members of the cycling trade and racing men who have seen the device, declare it to be the best trade device introduced on the safety machine, and when it is placed in the hands of the European record breakers, it is confidently expected that their machines, fitted with the device, will give such additional power, especially over the dead points, as they have never had before, and it is only reasonable to expect that they will still further reduce the records, as all racing men agree that bumping, even on the track, is not unknown,

especially when starting and when sprinting; therefore, when racing men and ordinary riders recognize that a machine in the future can be propelled from three points in place of two as at present, it is in accordance with true mechanics to predict that both labor will be saved and speed increased as additional power (now lost) is made use of.

"The mechanism can be easily fitted with very little alteration to existing machines, and when made in large quantities can be adapted at a moderate cost, and a great feature of the devices is, that when the rider is not operating the auxiliary, not a fraction of friction is introduced, the rider having to exert no more labor than on an ordinary machine.

"The parts employed are few in number, and particularly strong and easily adjusted or replaced, the working parts being neatly protected by a dust proof case, and one barely detects its presence on a machine. A simple locking bolt, easily manipulated from top bar, enables the rider to stop the auxiliary motion if he so desires when riding down hills; if back pedalling be used, or a free wheel he worked with the machine, this bolt will not be found necessary.

"It may safely be predicted that in the near future most cycles will be fitted with this device, providing as it does an additional propelling power at a cheap cost."

All Spoke in its Favor.

No opposition has yet developed to the bill now before the Massachusetts Legislature establishing the legal status of bicycles, tricycles, motorcycles and automobiles.

At a hearing before the Judiciary Committee of the lower house, which took place at Boston last week, Representative Luce, of Somerville, who introduced the measure, was the principal speaker. He told how accidents had occurred to bicyclists that were clearly caused by defective highways, and which in the case of carriages would have made the towns liable.

The bicyclists wanted the roads kept in suitable condition, he said; they do not ask that the cities and towns shall assume the safety of the roads, but want them kept reasonably safe.

Other speakers representing the L. A. W., Massachusetts Automobile Club and other organizations were heard.

To Discourage Thefts.

Massachusetts may follow the example of Connecticut in compelling dealers and other buyers of second hand bicycles to keep a record of the sale and a description of the seller, thus making the stealing of bicycles a less frequent occurrence by rendering it possible to trace the owners. A bill has been introduced in the Legislature to this effect.

It is also provided that any one who removes a name plate or alters the number of a bicycle shall be punished by a fine not exceeding \$20.

RECORDS IN RECORDS

Dealer had Eight Hundred Left Over and Then Declared Sidelines a Failure.

"Wouldn't you think that the average dealer had cut his eye teeth by this time?" asked the travelling man of the Bicycling World representative the other day.

"Of course you would, and so would any one else; but he hasn't, or at least a very large number of the dealers haven't. Instead of profiting by the bitter experience of the past, and guarding against future disappointment, as they should do, they go ahead in the same old way, apparently expecting to gather figs from thistles as they have done all their lives.

"Their shortsightedness and lack of enterprise has been borne in on me very pointedly during the present trip. I have been looking more closely than usual into the financial standing of dealers, and one thing I make a special point of studying is their handling of side lines. As I view it, and my people agree with me, the great majority of them must have something to sell to help them out with their bicycle business. The latter won't pay a profit on a twelve months' business, and it should not be expected to do so.

"Well, in my travels I have run across some dealers who have taken up the matter of side lines in the right way, and are making a success of them. But I am not as much concerned with them as with the others who have made a failure of it. They are the ones to be blamed or pitied—depending on the point of view—for the mess they have made of things.

"Most of them have had their experience with phonographs or other kinds of talking machines, rightly looking on them as one of the most promising side lines available. They are good sellers, yield a good profit, are pretty free from price-cutting, and can be handled to advantage by almost any bicycle dealer. A number of dealers have made their sale marked successes and are well satisfied with their venture.

"But the unsuccessful ones have shown a lack of intelligence in their handling of the business that is positively painful. They expect the goods to sell themselves, and when they don't they make it a test of endurance to see which can hold out the longest; and you can imagine which won at that game.

"Most of them manage to sell a few machines, and having done this look for a steady trade in records. This will almost always be forthcoming if the dealer keeps his stock up to date and makes judicious selections of his subject. But this is just where most of them fall down. They stock bad sellers and then say, in effect, that their customers can take them or go without. Of course, the last is just what they do—as far as that particular dealer is concerned.

"One dealer I talked to told me that he had eight hundred records on hand and, not unnaturally, he was pretty sick of the business, especially as he had had them on hand for nearly a year. I asked him if he had any of the late records, mentioning half a dozen of the most popular, and was answered in the negative. He was waiting to sell his old, unsalable records before he stocked what his customers want, and then is surprised that his venture has not resulted any better.

"This was the worst case I struck, but some of the others were nearly as bad. They showed an inability to grasp the situation, to master the ethics of shopkeeping, that seemed to me inexcusable at this late day. In fact, I begin to think that this is the reason they have done so poorly with the bicycle business."

When the Lamp Goes out.

Still another bill affecting bicycles, in common with other rubber-tired vehicles, is engaging the attention of the Connecticut Legislature. On Saturday last Representative Freeman, of Hartford, offered a bill which is evidently intended to supplement the measure now on the statute books applying to the carriage of lights on rubber tire vehicles.

The new bill provides that a rider of any rubber-tired vehicle, whose light has become extinguished or who is necessarily absent from home without a light, when going at a pace of not more than six miles and making a signal audible fifty feet in every one hundred feet, shall be exempt from arrest. Any bicyclist or automobilist arrested may tender \$5 or his machine for appearance.

Inspector Found Nothing Wrong.

Judgment in the sum of \$1,392.68 was awarded the Clipper Chilled Plow Co., of Elmira, N. Y., last week, in its suit brought against W. E. Lindsay, of New York, for moneys due on account of bicycles purchased. The defendants put in a counter claim for \$10,000, alleging that the bicycles had defects which were not discoverable until they were used. It was shown, however, that Lindsay had an inspector at the Clipper factory, who passed the machines.

Oliver and Straus Discharged.

Judge Brown, of the United States District Court, New York, granted a discharge in bankruptcy to Edwin Oliver and Alexander Straus, who composed the old firm of Oliver Straus & Co., formerly at 23 Park Row, whose liabilities were about \$100,000.

President Perkins Will Retire.

George T. Perkins, president of the B. F. Goodrich Co., who has presented a \$50,000 library to the city of Akron, Ohio, will retire from active business life at the end of the current year.

Sweet Offers to Send Samples.

Certainly no jobber can excuse himself for ignorance of the Allen tire bell. Its makers, the George Sweet Co., of Dansville, N. Y., offer to send sample bells to all who apply for them.

"Keep Your Eye on the Little Blue Wheel!"



Bicycle racing is a long way from being dead. THE NATIONAL has always been a popular wheel with the boys who buy their bicycles. It's staunchness, reliability and easy-running qualities make it a favorite.

The Model 41 is our latest racing production. "The Little Blue Wheel" will be in many a finish this year, and its riders will be just as enthusiastic as ever.

It gives the rider a good position—different from others—is made to run easy and to stand the hard knocks which are inevitable.

It's in a class by itself.

NATIONAL CYCLE MFG. CO., BAY CITY, MICH.

GET OUR CATALOG.

Fisk Tires

Fisk Vehicle Tires.

We make tires for both carriages and automobiles.

Many years' experience in making this class of tires has enabled our expert rubber men to produce a tire superior to any vehicle tire heretofore used.

The fabric used is original with us. It is called Fisk fabric. Its peculiar construction prevents the cutting of one thread by another, and insures adhesion of the different layers of fabric and rubber which make up the tire.

It is not to be compared with the fabrics ordinarily used.

It holds the outer cover from loosening, is more difficult to puncture, easier of action and more durable.

In the making of these tires we seek to produce perfect goods rather than goods at a price.

Other vehicle tires may yield the dealer a little more first profit, but they don't win the lasting customers as will Fisk tires.

Made in various sizes and weights. Our new catalog tells all.

FISK RUBBER COMPANY, Chicopee Falls, Mass.

BRANCHES: SYRACUSE, BUFFALO, DETROIT, CHICAGO and 36 Dearborn St., SAN FRANCISCO.

REPAIR DEPOTS: 105 Reade St., New York. 110 Portland St, Boston. and 1015 Arch St., Philadelphia.



THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
"The Wheel" and the "American Cyclist."

Published Every Thursday

By

THE GOODMAN COMPANY,

123-125 Tribune Building.

(154 Nassau Street)

NEW YORK, N. Y.

TELEPHONE, 2652 JOHN.

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Invariably in Advance.

Postage stamps will be accepted in payment for subscriptions, but *not* for advertisements. Checks, Drafts and Money Orders should be made payable to THE GOODMAN COMPANY.

Entered as second-class matter at the New York, N. Y., Post Office, September, 1900.

General Agents: The American News Co., New York City and its branches.

Change of advertisements is not guaranteed unless copy therefor is in hand on SATURDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, FEBRUARY 21, 1901.

Gasolene's Triumph.

The passage by Congress of the gasolene-on-ferries bill is a far-reaching triumph and one fit to rank with the well-remembered "Liberty bill," which gave to bicycles their legal rights on the highways.

While the Congressional measure leaves the matter to the pleasure of the ferry owners or ferry masters, there is small doubt that their pleasure will be to permit without restriction the transportation of motorcycles and automobiles.

The more radical will undoubtedly desire that the law absolutely compel the ferries to carry gasolene propelled vehicles, but this time is no time for radical action.

Half a loaf is better than none, and the law as enacted is a big step in the right direction.

It practically removes from its path an obstacle that would have not only seriously affected the motorcycle industry but would have robbed the pastime of much of its pleasure.

While many of those directly concerned

displayed but lukewarm, if any, interest in the measure the Associated American Motorcyclists were alive to the importance of the occasion and proved their right to existence, recognition and support.

Our Exports and England's.

Our export trade is not what it used to be, but there's one comfort: Shrunken, though it is, it is still the lion's share.

If one requires further solace, the comparison of the American and the English records, published on another page, affords it. England once almost touched the ten million mark. We never came near it, but we crowded England out of first place just the same, and we still hold the lead.

Then, there's another point in our favor: Owing to differences in price, our figures represent many more bicycles than are involved in the British totals. This means, at least, greater numerical strength abroad. Our "moral force" is stronger, as it were, but whether values, not quantities, are not, after all, the most satisfactory is a phase of the matter that the exporter may well consider.

Getting Ready for it.

It is an encouraging sign, and one indicative of a determination to make a fight for the industry, that bicycle dealers everywhere are interesting themselves in motor vehicles.

Go where you will you will find unmistakable evidences of this. From the dealer with a big store and some spare capital to his humbler brethren who are content to plod along in an extremely modest way, the same leaven is at work.

In the case of the latter it may be merely the presence of an unobtrusive little sign telling whoever may be interested that motor or automobile repairing is being made a specialty of.

While the more pretentious store may stock automobiles and motorcycles, and engage to sell, hire and repair them in exactly the same manner as bicycles.

It is probable that even now a majority of the live dealers have made some move in this direction, and the number is being constantly added to.

Spring Tonic for Local Trade.

According to the Bostonese calendar, tomorrow marks the opening of the what is popularly designated the cycling season.

Unless because there is no National holiday between February 22d and July 4th it is difficult to understand how the Bostonians came to select the former date, for certainly no

outdoor season can be even half open until April has Marched its blustery and snow swept forerunner off its doorstep.

Despite the fact, for a while, Washington's birthday seemed likely to become the popular "opening day," but the evident too previousness of the date has apparently been realized; it has been heard less of and is being less observed this year than ever before. This is the case even in Boston, where the custom originated. It may be that there are fewer dealers than ever before to observe the occasion, but whatever the cause, February 22 has lost its charm or potency for those who remain.

While the date was too early, the idea was all right, and serves too good a purpose to be discarded. An "opening day" late in March or early in April is worth general observation. It attracts attention to the bicycle and gives to local trade a glow or stimulus that is not to be gainsaid.

"Opening day" is in the nature of a spring tonic of which the dealers in any town may partake.

Get your fellows together and partake!

Such is Fate!

Rubber tires made the bicycle popular, pneumatic tires made it almost universal. The inventor of the one, Dunlop, is living, hale and hearty, and enjoying a well merited competence, the result of his labor. The other, Thomas Sparrow, died the other day, poor and almost forgotten. So wags the world.

Profits, not Sales.

In deciding recently to institute a boycott against all bicycles listing under \$25, the Detroit dealers undoubtedly struck the nail on the head.

It is an assertion susceptible of proof that a bicycle retailed under this figure entails a loss to some one. It may be shared between the maker and dealer, or borne by either alone; but whichever is the sufferer the effect on the trade is almost equally bad.

It is not, of course, to be expected—scarcely even hoped—that there will be no sales made under this figure. In no line of business has such an ideal condition of affairs ever been reached, least of all is it to be looked for where bicycles are the article of merchandise.

Job lots will continue to be made up and sold; so, too, retailers will continue to cut prices in order to make sales. But there is reason to believe that in both cases this will in the future be the exception rather

than the rule, and that it will have little effect on the volume of sales.

Unless these expectations are ultimately realized there can be little prospect of the business ever becoming a stable one. The gratifying part of it is that they are much nearer to realization than they ever were before.

It is very evident that the dealers are not going to repeat the errors of the past. They now buy with caution and only what can be sold at a profit. This makes it easy for makers to dispose of portions of left-over stocks, but only at figures much below cost. In other words, the loss now falls on those who are responsible for the existence of these machines, instead of, as previously, being shared with the retailer.

This sort of thing cannot long be kept up. It is good policy to dispose of such machines for anything they will bring, but no intelligent manufacturer is going to continue making and selling machines at a loss; while the unintelligent kind will likewise be brought up short by the financial barrier which will confront them.

The curse of the bicycle business has been the willingness to do business on any basis rather than see it go to others. Now that a necessity exists for exactly the opposite course—to accept trade only when it will result in a profit, no matter how small—it will, perhaps, be bowed to and a better condition of affairs materialize.

Why They Fail.

Notwithstanding the earnest efforts they have made to make a success of the sale of side lines, many bicycle dealers have failed utterly to do so.

If this failure were universal it would indicate either that the dealers are unfitted for the task of selling other goods, or that the bicycle business is such a peculiar one that the experiment of combining with it the sale of other articles was a hopeless one from the start.

Both statements are clearly untenable. Bicycles will mix with other articles; and some dealers are born or made merchants and do not have to stand or fall by bicycles alone.

The trouble seems to be with the methods pursued by the dealers, or such of them as are unsuccessful. They do not appear to possess the shopkeeping instincts, to understand that the goods must be new and attractive, presented in an agreeable manner and sold at a fair, but not an extravagant, profit.

Many dealers pursue just the opposite course. They take up side lines only when the bicycle season is over and drop them when spring comes. They are plainly a makeshift, used merely to bridge over the abyss between seasons.

The retailer's heart is not in them; he has little confidence of his ability to make a success of the venture, and if the goods do not move promptly he never thinks of brightening the stock by adding the very latest articles of the kind. He believes that the old ones should be sold first, and then he will consider the question of putting in new goods.

Such a policy can have but one result—failure. It may come quickly, or may hang fire for a while; but sooner or later the dealer is compelled to admit, openly or tacitly, that the jig is up, as far as side lines are concerned.

This he is only too ready to do when the spring selling season approaches. Bicycles are something that he knows all about, and is in sympathy with; and in the future, he says, he will confine himself strictly to them, instead of wasting time and money on other things.

Unfortunately the average dealer is in a position where he cannot afford to do this. His bicycle business will not support him, and he must do something to help it along. By making a failure of side lines he only makes his position worse.

Besides, there are plenty of dealers who have grappled with the side line question and come out victorious. What they have done others can do.

The Advertising of Motocycles.

In good time the advantages of the motorcycle will be too fully understood and appreciated to require much elucidation of the sort, but during its novitiate, so to speak, the dealer should lose no opportunity to make the most of his material.

We refer mainly to the advertising of the new machine. Several ads. have come to our notice that show that the dealers in question have failed utterly to appreciate the situation. They deal in generalities that do not even glitter. They suggest nothing, they arouse no curiosity and can scarcely provoke inquiry. It is difficult to understand such a state of affairs. If there is anything under the sun that should appeal to the cyclist and to many who were cyclists, it is a bicycle that will push its rider uphill and against headwinds with little or no ef-

fort on his part. There are few who ever cycled or who may be induced to cycle who would not be interested in a machine of the sort.

It is this fact that must be kept in mind in talking and in advertising motorcycles. It is the key to the motorcycle's popularity, and the key should be used early and often.

"No hills, no headwinds"—and in flytime "no perspiration"—these form the slogan, the war cry, the selling argument of the motorcycle.

The evidence in the case is plain, and it is so easy to write ads. sounding the slogan in so many different ways, that few dealers have valid excuse of not doing the right thing in the right way.

They hardly seem necessary, but on another page we print a few "sample ads." dealing with motorcycles; they may serve to assist those whose spirits are willing, but whose pens and thoughts are weak.

Inventors Have a new Opportunity.

By a wise regulation—one which may almost be regarded as a stroke of genius—the bars of the Patent Office at Washington are raised irrevocably against perpetual motion inventions.

While in practice this summary rule works for the protection of ill-advised inventors it was by no means promulgated for that especial purpose. On the contrary, its object was to save the overworked force at the Patent Office the useless labor of even examining the mass of specifications which would inevitably be submitted to them but for the existence of this rule.

Even its known existence does not prevent the submission of hundreds of applications for patents on apparatus claiming to effect the impossible. Perpetual motion appears to be an even more fascinating study than the search for the philosopher's stone, judged at least by the visible results.

There is ground for the belief that not a few of these workers in the field of perpetual motion have turned their attention to motors and motor vehicles. The subject is one only less alluring in its possibilities to their first love, and in many cases the results will be almost as small.

However, in the absence of a Chinese wall such as proves a barrier to workers in the perpetual motion field, something of value is likely to trickle through, and the motorcycle, as well as other forms of motor vehicle, will benefit thereby.

RETAIL ADVERTISING

More Light on the Much Lighted Subject—
Hints That Will Help.

Advertising, like love, is a subject that never grows old. Despite the fact, there are those who seem unable or unwilling to learn the lessons of the many stories. Generally speaking, the larger manufacturers have realized the "what's what" of the case, but the smaller ones and the average retailer still "go it blind" on the hit and miss plan, and in the cycle trade the number is not small. Keen appreciation of advertising in its several phases is lacking.

In the retail hardware trade, on the other hand, this appreciation has been sharpened and is growing sharper, a result due in no small measure to the hardware associations that exist in the various States. At their meetings these organizations do what the *Bicycling World* has so often urged upon the cycle boards of trade, i. e.: They listen to the reading of papers on subjects of interest to the membership at large. Advertising is one of the topics usually given attention. At the recent meeting of the Wisconsin Hardware Association Frederick Peck, of Berlin, read a paper on the subject, and it displays such a splendid grasp of the situation and is withal so full of common sense and helpful information, that no wideawake cycle dealer can read it without finding many ideas that he can apply to himself and his business.

SUBJECT IS NOT STALE.

"I'll not say that this subject is a stale one," said Mr. Peck, "for the subject of advertising can never become stale to a live business man any more than eating to a growing boy. It is a subject which has been thoroughly digested heretofore, which has already been viewed from nearly every standpoint, has been argued from every sort of a premise, has had so many sorts of supporters, from the man who has made a study of it and conquered it to the man who thinks he knows all about it without having mastered the rudiments, that I hesitate to speak on so precarious a subject lest I make a fool of myself in my efforts to demonstrate that I belong to the former class, or fall down in my efforts to convince you that I do not belong to the latter class.

ADVERTISING IS AN INVESTMENT.

"I lay no claims to being an expert advertiser, but I was born with an inherited desire to get my money's worth; and this desire has always prompted me to see that the advertising money was spent with that object in view. Advertising is a business proposition pure and simple. It is a science only so far as any investment is a science. It is an investment the same as the purchase of a car or stoves is an investment; both are moneys expended with an idea of return in profit—both should be purchased

judiciously and with an idea of the requirements of the trade, both as to quality and quantity.

"There's a great deal in tact in advertising as well as in selling goods. In fact, tact counts for a great deal more in this world than we give it credit for. The dear old woman who went out of her way to hand a tract on 'The Evils of Dancing' to a one-legged man was very much lacking in this qualification; while the King's fool who was sentenced to death for some misdemeanor, yet was allowed to select his own method of shuffling off his mortal coil, exercised tact when he decided if it lay with him he would prefer to die of old age, and so saved his head.

"KNOW THY PUBLIC."

"We must know who the people are whom we wish to get at; and then we must 'locate their vitals,' as they say of a whale. In some communities a slangy worded advertisement might drive home a point, though to tell the truth I believe they are very, very few; while in others, the smoothly written, concise, polished advertisement would be more readily digested. Right here allow me to state a vital necessity in successful advertising is to somewhere in the advertisement drive home and clinch a point which will bring you dollars and cents; somewhere state a truth which, either by previous statement or insinuation, will convince the reader that what you are talking about is either better or cheaper or more desirable than he will probably be able to find elsewhere. Let each ad. be written as though you expected the reader is about to purchase somewhere the article you are advertising and it is necessary for you to convince him that yours is the place to buy it.

WHEN TO ADVERTISE WEATHER REPORTS.

"If you are advertising an article which possesses neither the feature of quality nor price, you'd better publish the weather report. It will do you just as much good and your readers more. I take no stock whatever in this style of advertising which says simply, 'Our Hog Rings are the best,' or which says, 'We carry a full line of Hardware, Tinware, Stoves, etc.' Why, if the reader has never seen your advertisement he could guess that every hardware dealer in the town would vouch for as much; but supposing you put in an advertisement like this, 'If' (and have the 'if' in italics), 'If our Hog Rings are better than others, there's a reason for it. Step in and we'll tell you what it is.' Then you have made a point. The customer thinks, without knowing he thinks it, that 'those Hog Rings have some point which is worth something, else he wouldn't ask me in to expatiate on their merits.' You have his curiosity aroused, and at the same time you have created the impression that you have a superior article.

"THIS ADVERTISING GAME IS A HOLD-UP."

"That enterprise which permits an ad. to stay in the paper from Christmas time until

it's time to advertise fire crackers, and from fire cracker time until Santa Claus time again, has received enough general condemnation to need no further mention here. You'll find that the dealer who has no more regard for his advertisement than to thus neglect it is the sort who is waving his hands high in the air and proclaiming to his fellow men that 'This advertising business is all a holdup'; when the facts in the case are that if this same man would change his ad. as often as he does the shirt on his back his community would be so surprised at the frequency of the former and the infrequency of the latter that they'd actually visit his place of business out of curiosity. They would probably find him as busy as the man whom the editors tell about who wouldn't advertise; an editor went into his place of business and actually found him busy—he had the itch and a Waterbury watch, and when he wasn't busy scratching himself he was winding the watch.

RESULTS AT SEASON'S END TELL.

"Put an advertisement in the newspaper just as you sow wheat—not with an idea of watching each and every kernel and judging the whole thereby, but rather to judge by the granary at the end of the season. Remembering this, use good seed and have the soil well cultivated; for no matter how good the seed, or how well put the advertisement, if the ground be not well cultivated, if you haven't the confidence of the readers of the advertisement, both seed and advertisement fall on barren ground.

KEEP FAITH WITH PATRONS.

"Be sure to always keep faith with your customer; don't advertise an article as of superior merit unless it has it; don't advertise it as cheap in price unless it is cheap. One of the most successful advertising agents in the United States will not write an ad. unless he has first ascertained to his complete satisfaction that the article advertised is all that the proprietor claims for it.

"Now, I am speaking only of newspaper advertising in this paper, for I believe that newspaper advertising is the only steady kind of advertising that pays. I am also only speaking from the retailer's standpoint. Dodgers, fence board advertisements and theatre programmes may be all right for an occasional 'flyer,' but the advertising that pays is the clean cut, fresh pointed and pithy advertisement that is stuck constantly under the nose of the man who is intelligent enough to read and to want to read his daily or weekly newspaper.

THE SPACE TO USE.

"The amount of space required to properly display an ad. also requires judgment, as it will vary with the article advertised and with the season of the year. Cuts are necessary to liven up an ad., but sometimes the cut of a fly will be more effective in advertising a screen door than a cut of the door. Because you can, in a small space, advertise very advantageously a penknife is no reason why you need a

much larger space to advertise a range; it might be that the reverse would prove true.

WHEN THE BILL COMES DUE

"Don't use a set amount of space, but have plenty and vary it. Let it carry the impression that you are advertising for business and not from force of habit.

"Too many merchants advertise for a month, or until the printer's bill comes in, and then, because they have to count out the cold cash and no customer comes in and purchases enough goods in response to the ad. so that the profits on the same will meet the printer's bill, they stop the advertisement, or put in a little card advertisement which reads very much as will the epitaph on their tombstone.

"Terry says a business man will be known to some extent by his style of advertisement.

"If he merely revamps old and stereotyped ideas and adopts other men's ideas, phrases and expressions, the probabilities are that he does the same in his business. Every man should endeavor in form or method to improve upon what he sees about him.

PAYING FOR LOST OPPORTUNITIES.

"The time was, years and years ago, when a man could put a standing ad. in the newspaper and have it worth something; but that time has gone by—it belongs to the days of the canal boat.

"I believe that the merchant of to-day who does not advertise is missing an advantage, and the merchant who does advertise, with an ad. that stands from week to week, is missing an advantage and paying for the privilege.

MISSION OF ADVERTISING.

"If advertising is worth anything—if it has a mission—it is to inform people; and you can't give the public any information by telling them something which they knew before. If you have the best store in town don't tell people of it—take it for granted that everybody knows it, or ought to know it—but tell them why it is the best store and carry the impression that you suppose, of course, that they know it is. In my opinion it is a good plan to leave the reader something to think out. 'Is 35 years' experience worth anything?' is better if it read '35 years' experience is worth something.' 'Peck makes his own tinware' is better put than 'Peck's own make of tinware is better than the machine made,' because the former conveys the same idea, but allows the reader to draw the conclusion himself. Either way of putting it wouldn't prevent Peck from buying his tinware from the jobber if his tinshop was overworked and labelling it his own make.

WHY PRICES SHOULD NOT BE PUBLISHED.

"There may be those who differ with me, but I believe that only that merchant who conducts a 'cheap store' should advertise prices to any extent. It is certainly of no avail to advertise prices unless the prices are low; and in order to advertise low prices the dealer must carry cheap goods—goods

to correspond with the prices. I admit, of course, that there are times when the cheap competition must be met, but the dealer should get goods for the occasion and advertise prices which are out of reach; but I believe that a business which is built up on quality is built on the rock, while that which is built on prices is short lived and built on the sand.

"Here's another idea—keep your eye on the printer.

KEEP AN EYE ON THE PRINTER.

"Many printers take a pride in their art and know how to properly display and insert an ad., but a large percentage seem to think that large, bold faced type is all that is necessary to give an advertiser his money's worth. Pick up any standard magazine of the day and see if you do not find that many of the advertisements which create the best impression and most forcibly present the merits of the article advertised are the most modest in their typography. We have followed the plan for several years in our business of having a special type, of which we purchase a font, and change the type yearly. We own the type and own it exclusively. It makes our ad. stand out from the other ads.

"It is better for the dealer to print out his advertisement as he wants it, showing display matter, etc., so that the printer can make no mistake; for the advertiser knows better than the compositor what point he wishes to emphasize and where he wishes to make an impression. Some printers have better taste and judgment in these matters than the advertiser. Of course, under those circumstances, it would be better to leave the whole matter with the printer, simply giving him the correct ideas.

ADVERTISING RESEMBLES COURTSHIP.

"In my opinion a dealer cannot advertise everything he has in his store in one five-inch double column ad. In fact, I do not think he can advertise any more than one article in such a size advertisement and have it amount to anything—two articles at the outside.

"Advertising is like courtship—you had better not undertake it unless you mean business. To carry the simile further: Advertising is like courtship in the ice cream season in that if you go into it half heartedly it is money thrown away."

Gets Advertising and Cash.

Ten cents per mile is the charge made by one New York dealer for riding a home trainer which he has constructed near the front of his salesroom. The trainer is the kind having three wooden drums, on which are placed a bicycle and its rider; the latter pedals, and when a good speed has been attained he has no trouble in keeping his balance. The scheme is productive in a double sense—it brings in a great many shekels and its operation always brings a crowd of the curious-minded to the door and front of the store to watch the performance.

The Men who will Manage.

In the reorganization of the affairs of the several plants taken over by the new Automobile and Cycle Parts Co., few changes will be made in the managements of the factories.

Herman Ely will remain in charge of the Garford saddle factory at Elyria, and C. B. Tewksbury of the Hunt factory, at Westboro, Mass.; instead of saddles, however, this plant will be devoted to golf goods. The chiefs of the other factories will be as follows: W. L. Colt, manager of the Cleveland ball and pedal factory, Cleveland; A. O. Smith, manager of Smith's stamping factory, Milwaukee; C. H. Foster, manager of the Thompson parts factory, Chicago; L. M. Wainwright, manager of the Diamond chain plant, Indianapolis; D. B. Marwick, manager of the Hart & Cooley plant, South Chicago.

Will Remove and Reorganize.

The M. Seward & Son Co., of New Haven, Conn., drop forge makers, and once a figure in the bicycle trade, have decided on a reorganization preparatory to their removal from the present quarters on Bristol street.

The concern is an old one, and when the present plant was erected it was on the outskirts of the town. The rapid growth of the latter, however, has encroached on it, until now dwelling houses surround the Seward buildings. Complaints of the noise and vibration of the drop hammers were made by the residents, culminating in a suit against the Seward Co. as a nuisance, and a court decision that they must remove by March 15 next. The time has now been extended to July 1, and a reorganization, as noted above, is to take place prior to the removal.

New Haven's Show.

On February 28 and March 1 and 2 the annual Bicycle Show of the New Haven, Conn., Y. M. C. A. will be held in Music Hall. This year automobiles will also be exhibited if the negotiations now under way are brought to a satisfactory conclusion. The bicycle trade is divided, some dealers having taken space and preparing to exhibit, while others have decided to hold aloft.

Kirk Honors Cornell.

As a running mate to their Yale the Kirk Mfg. Co. have added a \$30 bicycle to their line styled the Cornell; they are also building a line of juveniles for the first time and on the Yale chainless are offering the option of either the Sager of the Leland & Faulconer gear.

Judgment Against Pakas.

The Steel Ball Co., of Chicago, last week obtained a judgment for \$777 against S. L. Pakas, who was formerly in business in Chambers street, New York.

With spring—the real spring—still some distance off, the advance guard of the "re-opening" host of dealers is already in sight. It has been a long and a hard winter, notwithstanding its mildness climatically.

PIERCE'S OPINIONS

Buffalo Maker Speaks Encouragingly of the Outlook—Some Changes.

Of the prosperous concerns in the trade today, no one has done more to deserve its success than the George N. Pierce Co.

It is a far cry to the time when the manufacture of bicycles was only a side line with the Pierce Co., and nothing but real merit and wise management would have availed to bring that branch of the business to the front to the exclusion of the other lines as has been done within the past decade. No concern understands better the value of raising the general standard of price or has done more to bring about the betterment in this respect than is now so apparent, due largely to the increased demand for chainless and cushion frame machines.

In the Pierce Co. the strong and aggressive personality of its head, George N. Pierce, has always been felt. Mr. Pierce was in Detroit, Mich., last week, and the reporter of a local daily caught him in a communicative mood and secured an interview that is both timely and interesting.

President Pierce is a fine looking man, it says. He possesses all those characteristics that go to denote the self-made man, who has forced himself to the top through sheer strength of will and tireless energy. In a short conversation he touched upon every phase of the bicycle trade. He appeared to be as familiar with the trade in Australia as he is in New York State.

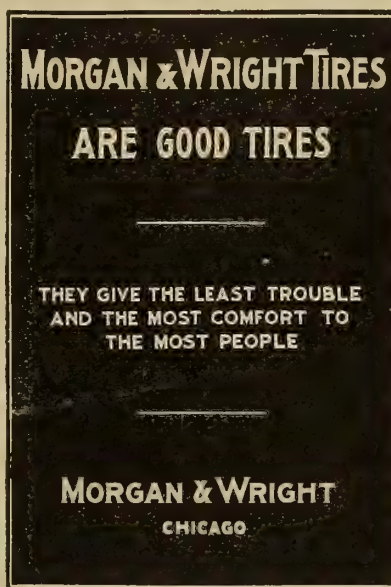
"The bicycle trade," said he, "has run to a different class in the past two years, a far healthier class, therefore the trade is in a far healthier condition than ever before. The bicycle is not used now, to a great extent, as a medium of pleasure; that period in its history is past. It is now used as a means of transit from the home to the factory, the store and the office. The pleasure runs to the country are, I believe, but a memory.

"In regard to the bicycle for the coming year, I may state that the chainless and the cushion frame will be used more largely than we at first anticipated, as the orders for those machines has caused our factories to run over time this winter, and the output is enormous. Last year the chainless and the cushion frame were largely experimental, but that stage has now passed. No, I do not think that the chainless will entirely supersede the chain wheel.

"There will be no radical change in the machine the coming year. Of course, improvements are going on all the time, as the bicycle factories are keeping pace with the progress of the age and here and there will be noticed some new improvement that will cause a stimulation in the trade among those who can afford to be up to date in bicycles as well as in clothes or hats. It is as much

of a fashion to have a new, improved wheel as it is to have a new overcoat. The man who cannot afford to have a new wheel is the man who cannot afford to have a new overcoat when the old one will answer his purpose almost as well.

"Now, I am not a man of fashion. I have worn this overcoat two seasons and perhaps if I were not in the bicycle business I would ride a wheel two seasons. But after two seasons the bicycle becomes to look a little ancient, just like a worn out horse, you know. In comparing the age of a horse with the age of a bicycle you might compute that a bicycle is fifteen years old after one season of use and after two seasons it is as old as a horse of twenty-five. You wouldn't think of driving a horse down the principal street who had reached the age of twenty-five. At



NEW YORK BRANCH: 214-216 WEST 47th ST.
BOSTON BRANCH: 80 BATTERYMARCH ST.,
Near Fort Hill Square.

least you wouldn't think of racing him against the fast young horses on the boulevard."

Mr. Pierce predicted that the bicycle industry of the country would grow for several years to come. The firm at which he is the head, exports many wheels this winter to the Philippine Islands, to Cuba and Porto Rico and is fast getting a large share of the trade from the South American countries, where heretofore the English wheel has had the inside track.

Drake's Fire Damage.

Fire originating in the enamelling department attacked the wood-rim plant of the Drake Mfg. Co., of Milwaukee, Wis., last week, and caused a loss of about \$1,500 to the stock and machinery, on which there was \$1,400 insurance. The plant had just started up two weeks before, and the stock of rims, finished and unfinished, was destroyed, while the machinery was seriously damaged.

BARKER'S BUSINESS

Its Size and Impressive Arrangement—A Sample Room That is a Model.

While they are known and much sought by all who have anything to sell, comparatively speaking, C. B. Barker & Co. have never been really well known to the rank and file of the trade.

Of course, they are far from being strangers, and did a good business; but it is not to be denied that jobbers of less than half their magnitude and means were far more prominent and more closely identified with the trade. In a word, the Barker light has been hid under a bushel; people have had but a vague idea of its immensity and intensity.

Harris Parker, who recently took over the management of the Barker interests, evidently appreciates the fact, and it is therefore certain that the Barker light and business will be placed on the plane of prominence which it deserves.

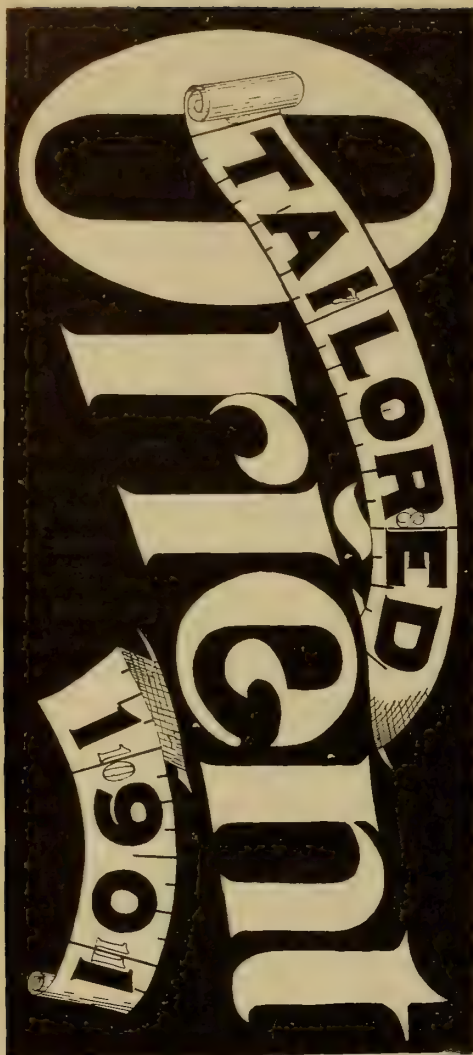
Any one who visits the Barker establishment, at 93 Reade street, this city, is certain to carry away an impression not easily dissipated. The store is a remarkable exhibit in arrangement and stock, the latter of which occupies three floors and comprises everything which a cycle dealer or assembler may require.

Long, high, narrow shelving runs the depth of the store in parallel lines; the shelving is divided into compartments, and the compartments contain all those parts, fittings and sundries that represent the cycle industry. It would be difficult to name an article of which a supply is not kept on hand.

In the sample room samples of all these goods are displayed. And such a sample room! It is an object lesson in arrangement, convenience and good taste. It is really one corner of the salesroom, about 10 by 10 feet, from which it is separated by head-high partitions of pine. Inside are successive rows of removable pine panels arranged on three sides of the partitions; the panels are about 18 by 12 inches, on which are fixed samples of the various articles; by merely springing a latch each panel may be removed from the wall and the samples examined at close range; there is also a shelf fixed waist-high on which other goods may be shown.

The whole arrangement is far more interesting and impressive than words can well make plain. It is a "cycle show" in miniature, and one that would add to the appearance and effectiveness of any establishment.

Barker & Co. cover New York, New Jersey, part of Pennsylvania and the New England States. Until this season they handled complete bicycles, but hereafter will confine themselves to parts, fittings, tires and sundries.



**THE NEW PHOENIX THAT HAS
ARISEN FROM THE ASHES OF
HIGH GEAR EXPERIMENT.
THE ONLY MADE-TO-MEASURE
MACHINE ON THE
MARKET.**

Here is the line of 1901 Orients now
ready for February assignments:

ORIENT LEADER

in male and female models.

TAILORED ORIENT

made to measure for individual re-
quirements.

ORIENT MILAMINIT

for the race winners.

CHAINLESS ORIENT

for both men and women.

ORIENT MOTOR BICYCLE

for past masters in cycling.

All combined with Cushion Frames
and Coaster Brakes—if you say so.

**WALTHAM MFG. CO.,
Waltham, Mass.**

The Satisfying of Customers.

The end of the season of inactivity is right at hand, and in a little while you will have no time to look at, much less read, what a manufacturer writes about his product.

Just now, however, is the time when you have to decide the all-important question of what you are going to sell and make a profit out of.

That last item, profit, is what you are going to work for, isn't it?

How would you like to have your first customer say:

"Why, I can buy a wheel just like that one, only with a different nameplate, for \$5 less?"

Or would you rather have him say:

"Our bicycle is different than any other I have seen. It has lots of good points about it."

In the latter case you are selling a specialty.

Price is not the only consideration. You have given him something else to be interested in.

Minutes are golden during the quick bicycle season.

If a wheel you sell does not give satisfactory service, don't you have to drop everything and attend to the disgruntled customer?

Perhaps he will not listen to reason, and makes his trouble known in forcible tones.

That's expensive. He takes your time, which might be employed in making a profitable sale, and drives away the intending purchaser.

Perhaps you would prefer to have the aforesaid first customer, and others after him, come in on you and say:

"Mr. Blank, I've brought my friend around to have you sell him a bicycle. That one you sold me has proven to be all you claimed for it."

Customers become friends and fellow workers. That's what makes business grow, and incidentally the profits with it.

A satisfied customer is an advertisement in any business.

Don't forget that.

A line of bicycles that will give them to you is profitable for that alone.

A line of bicycles that has real, practical improvements, which are likewise talking points, will enable you to get a fair price for your labor regardless of what the "just-the-same-as-the-other-one" bicycle is selling for.

All this is extracted from one of those "timely talks" for which the National Cycle Mfg. Co. is becoming noted.

The observations are worth digesting by other than National agents.

Soudan has a Trustee.

Frank Dunnahoo, a South Bend (Ind.) lawyer, has been appointed trustee of the embarrassed Soudan Mfg. Co., of Elkhart, Ind. The material on hand will be worked up and disposed of at the best obtainable price if the permission of the courts to make the expenditure necessary for this purpose can be obtained.

AS A TRADE STIMULANT

there is nothing
so good as the

Wolff= American Regal and Holland Bicycles

They give tone to a
dealer's entire establish-
ment.

Each line is a com-
plete one, including Rigid
and Cushion frames, Chain
and Chainless driving
mechanism.

We also have some-
thing of interest to say
to you on

**A GOOD WHEEL
at \$25.00 list
and
Elfin Juveniles**

If you are an enter-
prising agent write us.

**Stearns Bicycle Agency,
GENERAL SALES AGENTS,
SYRACUSE, N. Y.**

ALMOST A RARA AVIS

An English Bicycle in This Country—Some of its Peculiarities.

"I had a rare opportunity the other day," said the old dealer, whose experience went back to the time when English high wheels and safeties waged equal battle in this country with those of home manufacture, "and I did not hesitate to make the most of it.

"It was nothing more or less than the chance to examine an English bicycle—one of late date, a good specimen of the English maker's handiwork, embodying in its construction all or nearly all the newest features. It was on a ferryboat, and its owner or rider had withdrawn to the cabin while in transit. So I had a few minutes in which to make an examination of the, nowadays, rare sight.

"At the first view of it I was impressed with a feeling that it was not an American machine. It had an unmistakably foreign look, and as I gazed at it from a distance I said to myself that it must be English. The fork crown had a square, massive appearance that pointed to insular origin—or an imitation of it.

"This was enough to impel me to walk over and make a closer inspection. The transfer on the head was scarcely needed to tell me that my surmise was correct, although it settled all remaining doubts. It was aggressively English—it bristled with points without which a bicycle could scarcely be made to go in the 'tight little isle,' but which are never seen on this side of the water. As I discovered one after another of these 'fitments' I almost had to rub my eyes to convince myself that the hands of the clock had not been turned back a decade, and that I was not selling English bicycles as of yore.

"First, as to the 'fitments.' Most important were the brakes, two in number, one applied to the front and the other to the rear rim; the former was operated by the regulation hand lever on the handle bar, the latter by back pedalling. From the hand lever concealed wires run down through the head and draw two blocks up against the rim. The rear brake is attached to the crank hanger, and by rather a complicated, but workable device, similar blocks are pressed against the rim by the act of back pedalling.

"Both rims were of steel, nickel plated, and shaped to take Palmer detachable tires. I rather expected to find a 'free wheel' device in the rear hub, but was disappointed. A celluloid gear case effectually hid the chain and sprocket wheels. Attached to the seat mast tube was a long white celluloid pump, running almost the entire length of the tube, while the saddle was of the familiar English type, ample in proportions and with enormous springs.

"The frame was not markedly dissimilar from the frames of our own machines, except that the upper rear forks, which were D-shaped, ran straight to the seat post forging, instead of being curved above the bridge, and that they were bolted to this forging instead of being brazed. The hubs were a trifle small, judged by our standards, and the crank hanger was not of the barrel type, being smaller in diameter between the ends which contained the ball cups.

"The handle bar was straight and extremely narrow—not more than sixteen or seventeen inches wide. The fastenings of both handle bar and seat post were of the outside clip and bolt and nut type, and the joints or lugs were all outside. The fork crown was of the double plate variety, with the aggressively square look so peculiar to English machines.

"From the feel of the machine it must have turned the scale at over thirty pounds—

quite a few pounds over, too. This is not altogether surprising when the load of equipment it had to carry is considered. And, oh, yes! I had almost forgotten the mud guards. There were two of them, both of metal, and with rather elaborate attachments.

"With such a machine its rider need fear wet and mud little, and down grades even less. Up the hill, however, I imagine he might wish he had less to carry, and were he anything but an Englishman he would soon start to strip the machine, beginning with the mud guards."

He First Applied Rubber Tires.

There died in London, England, the other day a man who, among other things, is credited with being the first man to apply rubber tires to bicycles.

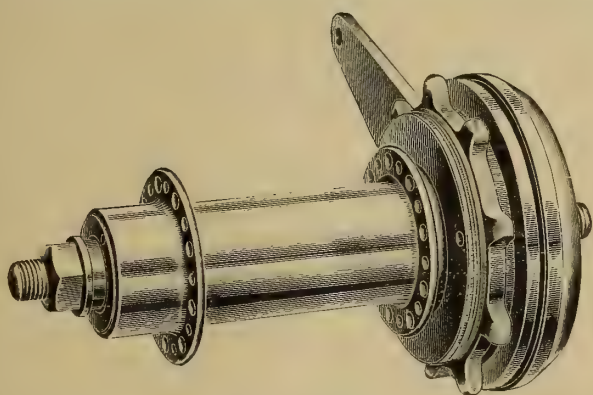
Over thirty years ago Thomas Sparrow introduced the bicycle to London as agent to a Paris firm of makers, and for many years devoted his time and money to bringing forward and furthering the popularity of the machine. He immediately opened a riding school, also a factory of his own at Knightsbridge, where such well known enthusiasts as Ion Keith Falconer and many others learned to ride.

He originated and bore the expense of the first ride from Land's End to John O'Groats, and rode a considerable distance of the way himself on a machine very different from those in use to-day.

He also invented, about twenty-five years ago, a bicycle for ladies.

Will Make Bicycles.

It is reported that a company to make bicycles has been organized at Delaware, Ohio, by M. L. Milgate, Charles Watson, G. W. Perne and E. R. Stone. The following board of directors was selected: H. L. Emerson, of Cleveland; George M. Bott, of Ashland, and M. L. Milgate, of Delaware.



THE "E. Z." COASTER BRAKE NO. 2.

Manufactured by

REED & CURTIS MACHINE SCREW CO.,
WORCESTER, MASS.

TO WHOM IT MAY CONCERN:

This is to certify that we have taken a license from the original inventor and patentee, Edward E. Ziegler, of Philadelphia, to manufacture the Coaster Brake shown herewith. We are the only ones authorized to make and sell this Coaster Brake in the United States, and all other parties making and offering such an article for sale are infringing our rights.

Yours truly,

REED & CURTIS MACHINE SCREW CO.

We would be pleased to have you catalogue this Brake, and can take care of you to your satisfaction.

WRITE FOR CATALOGUE "C."

The Retail Record.**NEW STORES.**

Oswego, N. Y.—Michael T. Crimmins, No. 102 East First street.

Salem, Mass.—John J. Kelliher, Washington street, reopening.

Malden, Mass.—V. Chisholm, No. 72 Ferry street.

Gouverneur, N. Y.—W. F. Johnson, Depot street.

Mystic, R. I.—Nelson J. Barker, reopening.

EMBARASSMENTS.

Elwood, Ind.—F. P. Starkey, filed petition in bankruptcy.

Allentown, Pa.—A. Goldberg & Co. have been sold out by sheriff.

FIRES.

Syracuse, N. Y.—Bogart & Duckrow, East Water street, loss slight.

Massillon, O.—J. R. Smith.

CHANGES.

Gloucester, Mass.—Perkins & Corliss have put in a gas engine and made other improvements.

Wappinger's Falls, N. Y.—William Baxter succeeds William Britner.

Swanton, Vt.—N. P. Leach Co., N. P. Leach has disposed of his interest to W. H. Blake and E. T. Bradley.

Nashua, N. H.—McAfee & McMaster, alterations made.

Plainfield, N. J.—F. L. C. Martin Co. have opened their new store on Park avenue.

Lock Haven, Pa.—J. S. Waite has purchased farm implement business and will unite his bicycle business with it, removing to Main street.

Lansing, Mich.—G. H. Achtenberg succeeds F. L. Holmes & Co.

Plymouth, Wis.—R. M. Weber succeeds A. J. Eischenberger.

Lynbrook, N. Y.—F. D. White, discontinued.

Rockland, Me.—The Art and Wall Paper Co. will confine its business to bicycles and sewing machines.

Milan, Mich.—George F. Minto succeeds A. E. Putnam.

Xenia, O.—Watkins & Spahr, discontinued.

Pittsfield, Mass.—W. J. Devall is making extensive alterations to his store.

Russellville, Ind.—Larkin & Scott succeed Mayes & Larkin.

Lawler, Ia.—John Miller succeeds Miller & Eickhoff.

Kenton, O.—Smith & Emms succeed Smith & Flint.

Effingham, Ill.—Hough & Flack succeed E. E. Hough.

Charter Oak, Ia.—T. Thomsen succeeds T. N. Peterson & Co.

Jacksonville, Ill.—George S. Gay succeeds Hayden & Gay.

Fort Dodge, Ia.—Ryan Implement Hardware Co. succeeds Ryan & Co.

Corning, Kan.—Donald & Son succeed Morgan & Donald.

Merton, Wis.—Warner Fuller succeeds A. F. Norton.

Tampico, Ill.—John R. Howlett succeeds Howlett Bros.

Lumberton, N. C.—George W. Smith succeeds W. P. & H. McAllister.

Massillon, O.—Daniel Humperly & Son succeed Humperly & Jacobs.

Tipton, Ind.—L. Compton & Son succeed L. Compton.

Glasco, Kan.—G. B. Van Landingham succeeds Day & Day.

Adrian, Mich.—Bedell & Son succeeds Amos Bedell.

The Patee Full of Promise.

The Patee motor bicycle, which is shown by the accompanying illustration, has been awaited with no little interest. It had been well heralded, and it is only fair to say that



its appearance seems to bear out the earlier promises.

Judged by the picture, it is a big stride toward motorcycle simplification. The design of the frame, the location of the motor and the shape and position of the several appurtenances give the machine a clear cut individuality that appeals to the eye; it does not look like a "machine shop on wheels," as some of its kind have been described.

The Patee people have been as wise in the construction of the bicycle proper. It was built for and not merely adapted to the use of a motor. The frame is made of inch and a quarter tubing, 18 and 20 gauge, with heavy forks, stays and front fork, the front fork crown being heavy drop forged tandem crown, splendidly reinforced. The wheels are twenty-six inches in diameter, with heavy spokes and two-inch tires, and every other detail of construction is as substantially worked out.

Farragut, Ia.—J. H. Clark succeeds Clark & Mickel.

State Center, Ia.—J. H. McMahon succeeds West McMahon.

Vallisca, Ia.—Allard & McCormick succeed C. W. Brelsford.

Waupun, Wis.—D. I. Flyster succeeds Ferguson & Flyster.

Edinburgh, Ind.—W. D. Prichart succeeds W. H. Bowman.

Moscow, O.—Hall & De Bruler succeed W. R. Fee.

Springfield, O.—S. R. Elliott succeeds W. E. Larcom.

Jefferson, Ore.—A. B. Tucker & Son succeed A. B. Hudelson.

Youngstown Dealers Join Hands.

After several fruitless efforts to effect an organization, the dealers and repairers of Youngstown, O., have at last managed to come to an agreement. In consequence an association has been formed, the objects of which are stated to be to promote the best interests of the trade, establish and enforce a uniform price list and to take an active interest in bicycling.

The meeting was attended by representatives from some seven establishments, and a permanent organization was effected, with the following officers: President, C. E. Brown; vice-president, Morgan Lewis; secretary and treasurer, Richard Ward.

The movement is the result of a feeling against the wholesale slaughter of prices indulged in last season and that the maintenance of a fixed scale of rate on wheels and repairing for 1901 is absolutely necessary. As one dealer expressed it:

"One or two firms have almost seen fit to ruin the business by slashing prices right and left, and what we want to do is to get together, draft a scale of prices and stick to it. In that way and only by some such means can the business be preserved on a paying basis.

"In order to bring such a thing about we have almost determined to place each member of the association under bond. Whoever violates the agreement will be compelled to forfeit the amount of his bond, and it will be of sufficient amount to hold them, too. We do not mean to raise prices, but simply to maintain those already in force."

Portland, Oregon, Organizes.

Portland, Oregon, has swung into line and is now possessed of a Cycle Board of Trade. It was organized February 7, with these officers: President, A. J. Winters, of Honeyman, De Hart & Co.; vice-president, J. F. McLean; secretary, Henry Goodman, of Henry Goodman & Co., and the well-known Fred T. Merrill, treasurer.

A repair tariff and an agreement covering installments and second hand wheels will be arranged, and meanwhile a committee consisting of Messrs. Merrill, Goodman and McLean were appointed to have introduced into the Legislature a bill making the theft of a bicycle a penal offense.

Always has an Audience.

Anything possessed of life or motion has a charm for the passerby, and this fact has frequently been taken advantage of by clever window dressers. The old trick of having a running bicycle in a window was often played, with good results; and even now some of its many possible variations would take well.

Something in this line is being done by a Troy (N. Y.) dealer, J. H. Hidly, who is building a motor vehicle in his window. He is the recipient of a vast amount of attention, and there is scarcely a time when one or more persons are not stationed in front of the window watching the various operations.

ADVERTISING MOTOCYCLES

Keynotes to be Struck—How New Type can Help Sales of the Old.

If there is anything which affords more latitude than the motorcycle for easy, effective and intelligent advertising, it is impossible to call it up at this time.

The advantages of the new machine are so plain, and are such as can be brought so closely home to any one who rides or who ever rode a bicycle, that there is small excuse for the retailer who fails to make the most of his opportunities.

Despite the fact, the few dealers who have advertised motorcycles do not appear to have grasped the key to the situation, although it is at the very points of their pens.

There can be scarcely two minds that the

PUSH OR BE PUSHED?

That is
the Cycling Question
of the Hour.

Whatever your decision may be we are in position to meet it.

If you prefer to push, there's the ———, the up to datist pedal-propelled bicycle on the market.

If you prefer to be pushed we have the ———, the most powerful motor driven bicycle ever built. It levels all hills and stills the headwinds.

Come in and look it over.

"no more hills, no more headwinds, no more perspiration" is the keynote to all argument and advertising, for some time to come at least. Yet dealers, generally speaking, seem to fancy that every one knows or must know all about motorcycles, and they advertise accordingly. As a result their ads. are colorless and lacking in all that goes to arouse curiosity, attract attention and make converts and sales.

It is expecting too much to fancy that the average individual is familiar with the motorcycle and its benefits. An overwhelming preponderance of the population have never seen one, and have but vague ideas of its uses and its advantages.

It is this vagueness of ideas that the dealer must sharpen into curiosity, and the curiosity in turn into enlightenment.

Possessed of the first motor bicycle or motor tricycle in his city or town, an agent awake to his opportunities has an advertising medium that should crowd his store daily. It is the curiosity aroused by the new machine that will attract the people, but, once they are in his store, it is the dealer's duty to see that they do not escape without

attention of some sort. Comparatively few of them may be able to afford a motorcycle, but, once their interest in this is satisfied, efforts should be made to interest them in the lower-priced crank-driven machines and the newer creations in tires, sundries and the like.

It is in this way that the motorcycle can

If All Those Who Gave Up Bicycle Riding because

Climbing Hills and Pushing against
Headwinds was "too much
like work"

will drop in and see us, we will be pleased to show them a bicycle that avoids such work and transforms the hills and headwinds into genuine pleasures—a bicycle designed to renew their cycling interest and enthusiasm.

? How would you ?
like to
own a Bicycle
that
Pushes Itself
Uphill
and
Against Headwinds ?
? We have One ?
on Exhibition.

Those
Back-breaking Hills on the ——— Road
have been leveled.

All who ride bicycles will hail the news with joy. The ——— motor bicycle does the leveling. On this bicycle all hills become levels. While you steer, the motor does the pushing.

We have the other kind of bicycles, too.

be used as a magnet or bait, and thus earn a part of its cost. That machine of itself may not hook the fish, but with all the other hooks at his command the agent who does not angle with some of them is lacking in salesmanship and in the shopkeeping instinct. He is letting slip opportunities that may never return.

The motorcycle is destined to play a leading part in renewing the interest and enthusiasm and in coaxing back into the cycling fold the thousands whose enthusiasm has waned or is lukewarm, and the other thousands who have entirely abandoned the bicycle because they considered cycling to be "too much like work."

That the hill and the headwind and "the sweat on their brow" have been prime causes for the decline and deadening of interest of these numerous classes scarcely admit of dispute. It is therefore a logical premise that not a few of these may be won back by the cycle which robs both hill and headwind of their terrors; indeed, there can be few who ride, or who ever rode, or who may be induced to ride, who will not be interested in a machine of the type.

The opportunities for the dealer are therefore almost unlimited. There was never an invention that so strongly suggested its own

MOUNTED ON A ——— MOTOR BICYCLE
YOU MAY LAUGH AT THE HILLS,
AND AT THE HEADWINDS, TOO.

No more need you push and push and push, with your back bent over the bars, your muscles tense, and your breath coming in "quick, short pants."

The motor bicycle has robbed the hill and the headwind of their terrors. It coasts up hill as easily as it coasts down.

If a bicycle that does that appeals to you, drop in and examine the ———

advertisements, and never such advertisements that promised greater returns. No master hand is required for their composition; ordinary "horse sense" will serve.

The accompanying sample ads. are mere suggestions. They are capable of expansion or contraction at will, or they may be used as written, with abundant promise that they will fulfil their mission wherever used. Be this as it may, they make clear the lines on which the retailer must fight his motorcycle campaign this summer, and perhaps next summer and the summer after that. By that time the public will have a general appreciation of motorcycles, and another avenue of attack must be found; but that is a far future that will take care of itself.

Meanwhile, fight it out on the "no hills, no headwinds" line, and success is reasonably sure; keep always in mind, too, that, although people drawn into your store by the motorcycle may not be ready to purchase that machine, you should seek to interest them in your other wares. In this way your motorcycle and your motorcycle advertising serve a double purpose that cannot fail of effect.

RUBBER SCARCITY

More Talked of Than Real—Why a Shortage is Practically Impossible.

Much is said and written about the increasing price of rubber, due to an actual or impending scarcity. As the price, notwithstanding sudden and, within certain limits, violent fluctuations, remains pretty nearly stationary, however, these doleful assertions are to be taken with a great many grains of salt.

There is no real scarcity of rubber, says the India Rubber World, in an article relating to the crude rubber supply. Vast supplies exist in forests which have never yet been "worked," and there is rubber in warehouses in many markets, and afloat on the seas, for all who have the money to pay for it.

Every country that ever yielded any rubber continues to do so; ever grade of rubber that ever came to market is still coming; the world's total production, as a rule, becomes greater every year. All who have use for rubber goods of any sort find the market amply supplied. Where, then, is there scarcity?

It is true that, now and then, consumption gains on the rate of production of the raw material, and prices may rise in consequence, but this very fact starts more gatherers to work, and prices tend downward again. Of course all crude rubber costs more than formerly, but this is true of many other things, and consumers now are as able to pay for the rubber goods they need as people ever were.

No fear need be felt that the supply of rubber will ever be monopolized. Could such a thing be done, the manufacturer, first, and the consumer of rubber goods, in the end, might be made to suffer exactions hard to bear. But a consolidation of all the firms, in various parts of the world, who have capital invested in handling crude rubber would be out of the question, if only for the reason that the rubber business as a rule is carried on in connection with other trading, from which it would be difficult to separate it.

A complete monopoly of rubber, then, would mean a great general trading company, constantly liable to competition from new sources, in respect not only to rubber, but to all the other commodities. The success of the Standard Oil Co., a notable example of monopoly, is due to their complete control of the natural supplies, confined to a limited and accessible territory, and to handling their products on a very large scale, making great economies possible.

Rubber, on the other hand, is obtained throughout a wide belt, extending around the world, but mostly in regions remote from civilized centers, unsuited for white men; it comes in dribbles to innumerable initial markets, from millions of gatherers, whose labor practically is beyond control. Moreover, if

all the forests now yielding rubber and all the rubber gatherers at work, and all the houses trading in rubber in America, Europe, Asia and Africa, were brought under single control, the possibility would exist of new forests being explored, new workers found, and new trading houses opened, every one of which facts would tend to the overthrow of the monopoly.

Horse Power—What is it?

What is a horse power? It is doubtful if one man out of every two approached could give a definition which would be anywhere near the truth.

A story which illustrates this is told of a man who was one day watching a steam pile driver at work. Finally he said to a bystander: "How wonderful are the works of man. He can really do anything he sets about doing. Now, that engine is about 12 or 15 horsepower, I suppose. Well, now, isn't it wonderful when you think of lifting a weight equal to 12 or 15 horses that high and letting it drop?"

This original view of the term differs widely from the true one, of course. As defined by the Standard Dictionary, a horse power is "a standard theoretical unit of the rate of work; equal to 33,000 pounds lifted one foot high in one minute; obtained by Boulton & Watt from observation of the strong dray horses working eight hours per day at the London breweries."

Workmen Locate the Trade's Troubles!

Melbourne, Australia, which has been feeling a touch of the depression caused by the overdoing of the trade, has had organized "in its midst" the Victoria Cycle Trade Employes' Union, which purposes combating the trade evils.

The presiding officer thought the chief troubles of the trade were "low wages, long hours and excessive employment of boy labor." Any one of these, he said, was sufficient to depress any trade, and the three combined would act most ruinously to employer and employe alike.

Filipinos' Modern Methods.

Decidedly, the Filipinos are getting on. The remarkable progress of the bicycle in Manila was commented on some time ago, and now it appears that the insurgents are making use of this forerunner of civilization. According to mail advices from the Philippines, the Filipinos are employing innovations in their warfare. It is reported that an American civilian was held up by a party of natives on bicycles between Santa Anna and Mount Arayat, on December 26. All were in uniform.

Griggs and His Way.

"You won't need streets of gold if you ride a National with hygienic cushion frame," declares a New-Haven, Conn., dealer, Griggs by name, in his advertisement in a local paper. He evidently appreciates the fact that one sale of a first class machine gives him nearly as much profit as two cheap ones.

SELECTING ASSISTANTS

One Man's Opinion on the Subject of Employees in Small Stores.

Too much care cannot well be given to the selection of assistants in your business, says a writer who has given the retail business much attention. It is a difficult matter to find the right man, and is often an impossible thing. Frequently the retailer is as much at fault and to blame for this as anybody, because he expects too much.

It is extremely foolish to put the entire control of your shop in the hands of any servant, however good and capable he may be. He is sure to turn it to his own advantage, one way or another. Sometimes he does this by getting a thorough grasp of your business, having in view the time when he will set up on his own account in opposition to you. Sometimes, when he is left too much to himself, your customers are his in reality, and you find this out when he has left you and drawn them after him.

Occasionally, the man in charge makes too free with the cash that passes through his hands, and for a long time, under the lax methods of supervision that prevail, he can go on enriching himself in a small way without being found out. This, however, is a contingency that all employers are liable to suffer from. Even in the largest firms as in the smallest, petty pilfering goes on where least suspected. In a retail shop where small sums of money are continually being taken some system is wanted whereby receipts can be checked.

It is not always possible to keep a cashier to take all moneys, but it ought to be easy enough to have some one within call who can check and initial every cash transaction as it is recorded in a manifold book kept for that purpose. This would involve the entry of every sum received, which would be a further advantage to the retailer, as giving him a record of the day's doings, by which he could check the entries in his cash book or sales book, as the case might be.

Many retailers who are puzzling over the state of their affairs would find this plan answer admirably for keeping track of their incomings and helping them to watch over their outgoings. Only it does not do for the dealer to think the plan a good one for his assistants, but needless for himself. He must use the record the same as they do, and call some one to check and sign whenever he is taking cash in. I have known many men to be in the habit of slipping the money into their pockets and not entering it in any book, while at the same time they were very strict on their assistants to see that they entered everything that they received.

Another foolish thing I have often seen, that when change was wanted, some small sum maybe, it was fished out of a pocket and handed over without any account being taken of the amount. Small wonder if, when a man sees this done repeatedly, he should get into the way of doing it himself, having first put the change into his pocket instead of the till.

See That Motor

IN THE

KEATING MOTOR CYCLE

See That Curve

IN THE

KEATING MODEL 90

Keating Mattabesett No. 2

A high grade wheel at a low
grade price.

WRITE FOR AGENT'S PRICES.

Keating Wheel and Automobile Co.,
Middletown, Conn.

Here's a Steam Bicycle.

While steam was the favorite method of propulsion with the early workers in the field of motor bicycles—such as Copeland, Austin, etc.—their successors pin their faith to gasoline. A Kansas City man, however, J. B. O'Donnell by name, has gone back to first principles by putting out a steam bicycle.

O'Donnell's engine is constructed on what is known as the single exhaust theory, and while it is possible to carry 150 pounds of steam, the occasion will be rare when more than 80 pounds will be needed, says the description. There is a direct pressure on the crank shaft of 240 pounds, from which it may be seen that hills will not be an obstacle for the new bicycle. In descending hills the rider will have 15 pounds back pressure to the square inch on the driving rod, so that the speed of the wheel may be properly regulated. The boiler carries probably two gallons of water, and the gasoline fire pot will not need replenishing oftener than every three hours. A water glass will show the amount of water in the boiler, and so long as that is attended to there is no danger of explosion.

It is said that the capitalists of Kansas City who are backing the invention with their money hope soon to place it on the market at a price that will place it within the reach of almost any one.

How Quality is Telling.

Evidence that quality is telling, and that price is no longer paramount, is brought by the G. W. Cole Co. They report that the January sales of 3-in-One were nearly 100 per cent greater than during the corresponding month of 1900.

Cycle Trades Protective Association.

MEMBERS IN GOOD STANDING JAN. 12, 1901.

Iver Johnson Arms & Cycle Works,	Fitchburg, Mass.
Waltham Mfg. Co.,	Waltham, Mass.
The Crosby Co.,	Buffalo, N. Y.
National Sewing Machine Co.,	Belvidere, Ill.
Great Western Mfg. Co.,	La Porte, Ind.
H. P. Snyder Mfg. Co.,	Little Falls, N. Y.
Syracuse Arms Co.,	Syracuse, N. Y.
Julius Andrae & Sons Co.,	Milwaukee, Wis.
Huntington Mfg. Co.,	Huntington, Ind.
Hoffman Bicycle Co.,	Cleveland, O.
Hendee Mfg. Co.,	Springfield, Mass.
March-Davis Cycle Mfg. Co.,	Chicago, Ill.
Wisconsin Wheel Works,	Racine Junction Wis.
Worcester Ferrule & Mfg. Co.,	Worcester, Mass.
Baldwin Cycle Chain Co.,	Worcester, Mass.
Rochester Cycle Mfg. Co.,	Rochester, N. Y.
Bay State Stamping Co.,	Worcester, Mass.
Troxel Mfg. Co.,	Elyria, O.
Grant Tool Co.,	Cleveland, O.
Peter Forg,	Somerville, Mass.
Henley Bicycle Roller Skate Works,	Richmond, Ind.
Ideal Plating Works,	Boston, Mass.
Milwaukee Cycle Co.,	Milwaukee, Wis.
Aurora Automatic Machinery Co.,	Aurora, Ill.
Toledo Metal Wheel Co.,	Toledo, O.
Fay & Bowen,	Auburn, N. Y.
Hunter Arms Co.,	Syracuse, N. Y.
Arcade File Works,	Anderson, Ind.
The Butler Co.,	Butler, Ind.
Springfield Drop Forging Co.,	Springfield, Mass.
Miami Cycle & Mfg. Co.,	Middletown, O.
Power Mfg. Co.,	Bloomfield, N. J.
Luthy & Co.,	Peoria, Ill.
Geo. E. Lloyd & Co.	Chicago, Ill.
FRED. I. JOHNSON, PRESIDENT.	
F. B. ELDRIDGE, VICE-PRESIDENT.	
W. H. CROSBY, TREASURER.	
H. P. SNYDER,	
W. M. LEWIS,	
C. H. METZ.	

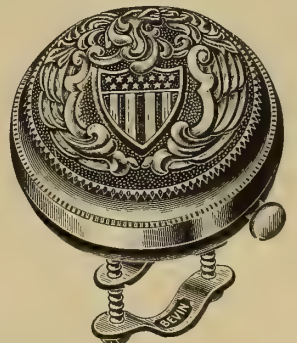
Board of
Trustees.

S. A. MILES, SECRETARY, 324 Dearborn St., Chicago.

You Hear Them Everywhere.

They've "caught" the trade;
they've "caught" the public.

IT'S A BEVIN YEAR.



The reason is not far to seek. We are ready to impart it to all who may inquire, and no one in the trade can well afford not to inquire.

Bevin Bros. Mfg. Co.,
East Hampton, Conn.
(Business founded 1832.)

ARE YOU DEAD

tired of the same old thing all the time?

Why don't you get out of the

OLD, OLD RUT

that Grandfather made? Your trade wants something new.

BERKEY BALL-BEARING POSTS

will interest them.

BALL BEARING AND CONE ADJUSTING

like the bicycle.

CAN BE ATTACHED TO ANY WHEEL, NEW OR OLD.

FOR COMFORT

it has no equal.

BERKEY SPRING POST CO.,
GRAND RAPIDS, MICH.

Booklet free.

IDEAL ADJUSTABLE BARS AND SADDLE POST.

Made of the best material, and finished and plated in the best possible manner.
Get our prices for 1901.

IDEAL PLATING CO., 3 Appleton St., Boston, Mass.

L. R. HALL
Enameling and Nickeling Co.
ENAMELING, NICKEL-PLATING
and VULCANIZING for the trade.

Carriage Tires
Our Specialty.

4 PORTLAND STREET
BOSTON.

Week of Heavy Exports.

Heavy exports of cycles and cycle stuff were the rule last week. England and France took particularly large shipments, while Germany, Australia, Africa, Japan and the Philippines purchased in quantities calculated to warm the cockles of the trade's heart.

The record in detail for the week, which closed February 12, follows:

Argentine Republic—19 cases bicycles and parts, \$845.

British Australia—186 cases bicycles, \$2,864; 19 cases bicycle material, \$606.

British Guiana—3 cases bicycles and parts, \$116.

Bremen—6 cases bicycles and material, \$295.

British Possessions in Africa—46 cases bicycles and material, \$1,948.

British East Indies—13 cases bicycle material, \$586.

China—1 case bicycles, \$25.

Central America—2 cases bicycles and parts, \$40.

Cuba—2 cases bicycles, \$29.

Danish West Indies—1 case bicycles, \$15.

Dutch Guiana—3 cases bicycles, \$152.

Genoa—1 case bicycles, \$25; 19 cases bicycle material, \$816.

Hamburg—154 cases bicycles, \$2,858; 38 cases bicycle material, \$1,273.

Havre—435 cases bicycles, \$10,312; 29 cases bicycle material, \$1,260.

Japan—31 cases bicycles, \$2,001.

London—60 cases bicycle material, \$2,452.

Liverpool—5 cases bicycles, \$191; 9 cases bicycle material, \$410.

Lausanne—5 cases bicycles, \$125; 3 cases bicycle material, \$35.

Mexico—1 case bicycle material, \$375.

Peru—1 case bicycle material, \$16.

Philippines—70 cases bicycles, \$4,041.

Rotterdam—1 case bicycles, \$50; 46 cases bicycle material, \$1,269.

Southampton—9 cases bicycles, \$290; 63 cases bicycle material, \$5,034.

Stockholm—14 cases bicycle material, \$950.

San Domingo—3 cases bicycle material, \$33.

Tasmania—2 cases bicycle material, \$39.

Uruguay—26 cases bicycles, \$591.

Oral Offers are Barred.

From Boston to New Haven the scene has been shifted in the matter of the long drawn out litigation affecting the defunct Worcester Cycle Mfg. Co. Judge Townsend, in the United States Court, at New Haven, last week, in the matter of the Central Trust Co., receiver, of New York City, vs. the Worcester Cycle Co., of Middletown, Conn., had presented to him the matter of an order which he was requested to pass, permitting the disposal of the property for \$5,800. The court refused to grant the motion on the ground that the offer was an oral one.

Lovell Factory's Fate.

It is possible that the old John P. Lovell Bicycle Factory, at Portland, Me., which has been idle since the failure of the concern, may be sold to the Bath Iron Works and operated as a branch of that concern.

YOU

DON'T

need to

TALK

in order to

SELL

CUSHION FRAME

BICYCLES.

Simply put a
PROSPECTIVE CUSTOMER
on a

TRIAL WHEEL

with instructions to

RIDE IT 30 MINUTES,

and the

CUSHION FRAME

WILL DO THE REST.

Get your **CUSHION FRAME**
ORDERS in **EARLY**
to your manufacturer.

HYGIENIC WHEEL CO.,

220 Broadway, New York.

Owners of the Cushion Frame Patents.

OUR
CRANK
HANGER
DOES
IT.

The
Racyle

DOES
WHAT?
MAKES
IT RUN
EASY.



THERE'S REAL COMFORT
IN THE REEVES

Ideal Spring Seat Post.

It relieves all jolts and jars, and converts any Bicycle, new or old, into a Cushion Frame. Fits any wheel. Sent prepaid to any address on receipt of \$1.75. Money back after three days' trial if you want it. Send size of present post.

D. E. ORVIS & CO., 71 E. Genesee St. Buffalo, N. Y.

Reference, Buffalo Commercial Bank.

Dealers send for Circular and Wholesale Price List.

16,400

SETS

Kangaroo Tires

From 1-3 to 1-2 less than
regular wholesale prices.

The best tire proposition
of the year.

7,000

SETS

No. 66 Fisk Tires

At 1-2 factory wholesale
prices. Write quick
for quotations.

Tires are going up; if you
wait you will be sorry.

A complete line of Sundries and
Fittings at lowest prices.

Good treatment and right prices
to all.

**Boston
Cycle & Sundry Co.,**

J. M. LINSOTT, Mgr.

**7 Hanover Street,
BOSTON, MASS.**

Dutch Rules for Motorcycles.

In Amsterdam, Holland, the regulation of traffic is left in the hands of the police authorities; the latter have recently turned their attention to motorcycles and automobiles, and some quaint rules have resulted. Witness the following:

(1) Drivers (chauffeurs) of motor cars have to comply with the police regulations respecting riding in streets and other places with carriages having one or more wheels and other means of transporting merchandise, and with the rules on bicycling concerning riding and passing streets and places.

(2) The velocity may not be greater than that of a horse going at a moderate gait.

(3) The motorcycles must be provided with a continuous-sounding bell or a strongly blown horn.

(4) The motor shall only be used as motive power for the cycle itself.

(5) Every cycle must be provided with two lamps throwing a clear light to front and sides from half an hour before sunset until half an hour before sunrise; one of such lamps will suffice at the front of the carriage for a three-wheel cycle.

(6) Carriages may not be charged higher than 1,000 kilograms (2,200 pounds) per wheel; if the carriage weighs over 3,000 kilograms (6,000 pounds), the rims of the wheels must be at least 10 centimeters (about 4 inches) broad.

(7) Not over 10 liters (10½ quarts) of oil, at the highest, may be stored in the carriage, and the oil must be stored in metal reservoirs.

(8) The reservoirs, pipes and valves must be perfectly tight to prevent leaking.

(9) The residues of the fuel must be thrown out without damage to the surroundings.

(10) The driver must be at least 18 years of age.

(11) The driver must, on first call, show his permit to the policeman.

(12) The number of the carriage, as prescribed by Government regulations, must always be visible.

Seat Post is Adjustable.

What rider does not wish when climbing a hill of any steepness to get a position further forward? It does not make any difference how much of a forward position he is accustomed to using, the instant he comes to such a hill he instinctively feels that he could do better work if he could slide an inch or two forward, and he will frequently work himself to the front of his saddle or even stand clear of it in the effort to do this.

To fill this want an English rider has invented an adjustable seat post. By just releasing a locking lever, without dismounting, the saddle slides forward and locks itself at whatever position the rider wishes. The saddle is always, however, at the same distance from the pedals. The pillar is made in two or three sizes to suit the various frames on the market.

Elfin
Bicycles

“Ice Wagons” Still Sold!

Bicycle manufacturers can offer a high grade chain model at about one-fourth, and a chainless for one-half the price of the old time “ice wagons.”
—Cycling Gazette.

All this is very true in speaking about adult wheels, but it won't hold good with Juvenile Bicycles.

While the prices may have been reduced, the average Juvenile Bicycles have been but little improved during the past few years.

They are clumsy, overweighted, and are further marked by an absence of simplicity in construction. They are still “ice wagons.”

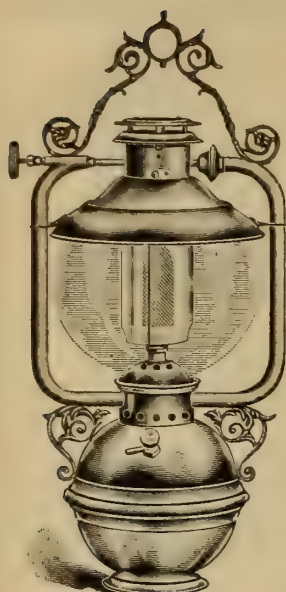
This cannot be said of the

Elfin
Juvenile.

The Elfin Juvenile is up to date in every particular. It's the only real, qualified Juvenile Bicycle in existence.

Send us a request for a catalog.

**Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.**



Outdoor.

THE NULITE 750 CANDLE POWER ARC ILLUMINATORS

Produce the finest artificial light in the world.
SUPERIOR TO ELECTRICITY OR GAS
CHEAPER THAN KEROSENE OIL

A 20th Century Revolution in the Art of Lighting.

They darkness into daylight turn,
And air instead of money burn.

No Smoke. No Odor. No Noise. Absolutely Safe.
They are portable. Hang them anywhere.

WE ALSO MANUFACTURE

TABLE LAMPS, PENDANTS, WALL LAMPS,
CHANDELIERS, STREET LAMPS, ETC.

The BEST and only successful

Incandescent Vapor Gas Lamps

made. They sell at sight. Nothing like them.

A SNAP FOR BICYCLE DEALERS.

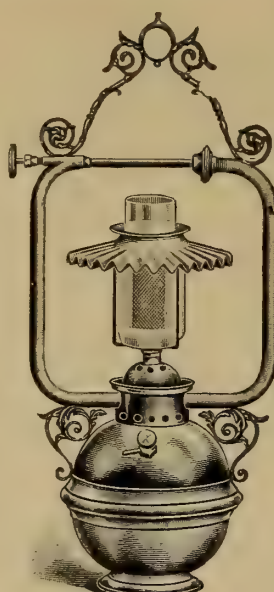
Agents wanted everywhere.

Write for catalogue and prices.

CHICAGO SOLAR LIGHT CO.,

56 FIFTH AVE.,

CHICAGO, ILL.



Indoor.



HERE IT IS!

The Melvin
Automatic
Coaster
and Brake.

Thoroughly reliable, having been tested for two seasons.

Write for catalogue and prices.

F. M. SMITH & BRO., - St. Paul, Minn.

GASOLENE MOTORS

FOR

Bicycles, Vehicles and Launches

AIR COOLED AND WATER JACKETED

ACCESSORIES AND PARTS

ALSO

Complete Sets of Castings and Working Drawings

LOWELL MODEL CO.

Box 292 LOWELL, MASS.

All American wheelmen who desire to keep themselves posted upon matters concerning the cycle in Europe, its trade, mechanics, and sport, should subscribe to

THE CYCLIST AND BICYCLING AND TRICYCLING TRADES REVIEW.

The only recognized authority of English trade and manufacture. Sent post free to any part of America for one year, \$3.25. American manufacturers having novelties in machines or sundries to introduce should advertise in

THE CYCLIST.

Terms on application to

LIFFE SONS & STURMEY, Ltd.,
19 Hertford Street, Coventry, England.

Members of the American Trade visiting England are invited to call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street, Ludgate Circus, London, E. C.

HIGH GRADE

wheels must have the
best equipments.

There is nothing that gives more value for
the money than the use of the

MORSE TWIN ROLLER CHAIN



NOISELESS IN MUD, WATER OR
DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless
Rocker Joints. Insist on having the
Morse Twin Roller. Fits regular
sprockets.

Send for Catalogue and
Trade Price to

Morse Chain Co., Trumansburg, N. Y.

Don't you believe it!—There is no tool as good as The Magic, for we manufacture nothing else; therefore, we spend our time and give our



HAS A POINT ONLY 1/16 IN. DIAMETER.

attention solely to the improvement of it, thereby easily keeping ahead of everything else in that line on the market. Try it and convince yourself of it's being the best repair tool for single tube tires that you ever saw or tried. Your jobber carries them. If not, write us. THE MAGIC REPAIR TUBE CO., 250 Larrabee St., Chicago.

20th Century OIL and GAS Bicycle, Driving and Automobile HEAD-LIGHTS.

For sale by all jobbers and dealers.
20th Century brand of Carbide.

WANTS AND FOR SALE.

15 cents per line of seven words.

WANTED.—Cyclometers, lamps, bells, tool bags, foot pumps, trouser guards and other sundries and equipment. Large lots preferred. Spot cash. MEAD CYCLE CO., Chicago.



THE NEW "AUTO" BICYCLE PUMP.

Patented Oct. 9th, 1900. The barrel is 15 inches long and 1 inch in diameter. Will inflate the heaviest automobile tire. Provided with our patented air tight swivel. Has solid base and will stand alone. The finest and strongest pump made. Sample sent on approval. Electrotypes for catalogues furnished free. Handled by all jobbers. Mention this paper.

D. B. SMITH & CO., Utica, N. Y., U. S. A.

Chicago and Cincinnati.

The Monon Route and C. H. & D. R'y run four trains daily from Chicago to Cincinnati. The day trains leave Dearborn Station, Chicago, at 8:30 A. M. and 11:45 A. M., and are equipped with elegant Parlor and Dining cars. The Night trains leave at 8:30 P. M. and 2:45 A. M. These trains are equipped with elegant sleepers and compartment cars, the sleepers on the latter train being ready for occupancy at 9:30 P. M. City Ticket Office, 232 S. Clark St., Chicago. ***

HAND AND FOOT PUMPS,

Oilers, Repair Tools,
Valves, Name-plates, etc.

Spelter Solder

Sheet Brass,
Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn.
Depots: 210 Lake St., Chicago.
421 Broome St., New York.

The "FLEMING" Motor LEADS.



Use it
on your
Motor-cycle.

Fleming Mfg. Co.,

93-95 Elizabeth St., New York, U. S. A.

The Week's Patents.

- 667,232. Bicycle—Edwin S. Leaycraft, Jersey City, N. J. Filed Feb. 28, 1898. Serial No. 671,894. (No model).
- 667,238. Changeable Speed Gear for Bicycles—John Manning, Agenda, Kan. Filed April 24, 1900. Serial No. 14,142. (No model).
- 667,432. Bicycle—Nelson B. Fassett, Chicago, Ill., assignor by mesne assignments to B. A. Fassett, same place. Filed March 19, 1898. Serial No. 674,549.
- 667,485. Non-Puncturable Tire—John C. Bean, Boston, Mass. Filed April 21, 1900. Serial No. 13,805. (No model).
- 667,594. Driving Mechanism for Bicycles—Cyprien Soucy, Jr., Manchester, N. H. Filed June 25, 1900. Serial No. 21,444. (No model).
- 667,716. Handle Bar Supporter—Charles Maldaner, Chicago, Ill., assignor to the Chicago Handle Bar Company, of Illinois. Filed April 28, 1900. Serial No. 14,706. (No model).
- 667,732. Handle Bar—Peter Oftedahl, Chicago, Ill., assignor to the Chicago Handle Bar Company, of Illinois. Filed April 28, 1900. Serial No. 14,732. (No model).
- 667,791. Device for Automatically Inflating Pneumatic Tires—Anders G. T. Osverstrom, Sundsvall, Sweden. Filed July 6, 1900. Serial No. 22,733. (No model).
- 667,858. Motor Bicycle—Frank B. Widmayer, New York, N. Y. Filed June 28, 1900. Serial No. 21,890. (No model).
- 667,887. Bicycle Brake—Erhard L. Mayer, London, England. Filed Sept. 26, 1899. Serial No. 731,744. (No model).
- 668,056. Bicycle Saddle—Milton E. Shane, Cleveland, Ohio. Filed Sept. 14, 1899. Renewed Dec. 27, 1900. Serial No. 41,296. (No model).

Still More Rigidity.

As showing the length to which makers will go in their efforts to obtain absolute rigidity, an English journal describes a cycle frame in which the back and front fork ends are rigidly connected. The chain stays are continued past the crank bracket to just in rear of the front mudguard, where they terminate in a six-inch horizontal wedge or quadrant, by which lateral movement only is permitted to the front forks.

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

hamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

Low Rates to the South.

Excursion tickets at reduced rates are now being sold by the Chicago, Milwaukee & St. Paul Railway to the prominent resorts in the South, including Jacksonville, Fla., Mobile, Ala., New Orleans, La., Savannah, Ga., El Paso, Tex., which are good for return passage at any time prior to June 1st, 1901. Information regarding rates, routes, time, etc., can be obtained on application to any coupon ticket agent of the Chicago, Milwaukee & St. Paul Railway. ***

If we spent

\$1,000,000

in advertising some people would still use cheap and leaky oilers. Spend a few cents more and get a **"PERFECT"** Pocket Oiler. You will be well repaid.



25c.

CUSHMAN & DENISON, Mfrs.,
240-242 West 23d Street, New York.

MORROW**COASTER AND BRAKE.**

Over **100,000** Sold
Last Year.

Everyone Giving Satisfactory
Service.

Make Your Cycle Saleable and
Desirable by Fitting it with
the **MORROW**.

ECLIPSE MFG. CO., ELMIRA, N. Y.

NEW YORK BRANCH:
105-107 Chambers Street.

If

You are Interested
in Automobiles,

THE MOTOR WORLD

Will Interest You.

IT'S NOT LIKE THE OTHER KIND.

It's readable,
and you can understand what you read.

Published Every Thursday
at 123-5 Tribune Building, New York.

\$2 per Year.

Specimen Copies Gratis.

Schrader Universal Valve.

(Trade Mark, registered April 30, 1895.)

NOTICE.

Manufacturers of Bicycles, Jobbers and
Dealers:

In order to facilitate the
obtaining of

PARTS of the
Schrader Universal Valve,

I have concluded to sell
parts only to the general
trade.

Parts 99-1, 99-2, 99-3, 99-4, may be had from all the makers' or from A. SCHRADER'S SON. Price List and description of parts sent on application.

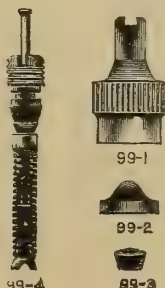
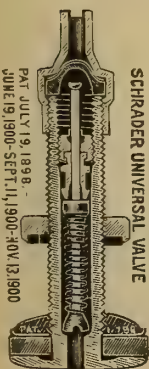
**SIMPLE AND
ABSOLUTELY AIR-TIGHT.**

Manufactured by

A. SCHRADER'S SON

ESTABLISHED 1844.

**30 and 32 Rose St.,
New York, U. S. A.**



NEVER LEAK

STOPS LARGE PUNCTURES.

This is the only fluid that can be legally used in pneumatic tires. Suits now pending.

BUFFALO SPECIALTY MFG. CO.,
Buffalo, N. Y.



THE LAKE SHORE ROUTE

BETWEEN

Chicago and Milwaukee.

Frequent fast express trains at convenient hours.

All agents sell tickets via this popular route.

CHICAGO & NORTHWESTERN R. R.

TICKET OFFICES:

368 Washington St., Boston.
461 Broadway, New York City.
193 Clark St., Chicago.

The Best Advertising for the
Irish Trade is

THE IRISH CYCLIST

Specimen copy and advertising rates on
application rates to

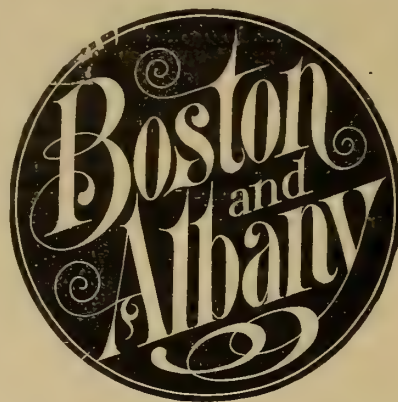
R. J. MECREDY & SON, Ltd., Proprietors,
49 Middle Abbey St., DUBLIN.

The Thorndike

Boylston St. and Park Square,

On the border of the most famous
Public Garden in America. BOSTON.

G. A. DAMON. J. L. DAMON. J. L. DAMON, Jr.



Through Train and Car Service in
effect April 29, 1900.

TWO FAST TRAINS

	"Chicago" Special Via Lake Shore.	"North Shore" Special Via Mich. Cen.
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Due Albany	4.10 P.M.	7.35 "
" Syracuse	7.55 "	11.40 "
" Rochester	9.40 "	1.30 "
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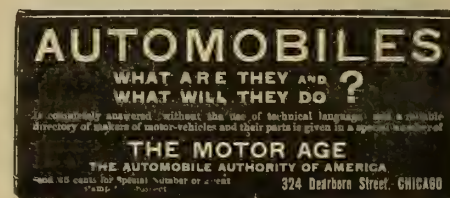
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The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., February 28, 1901.

No. 22

BOUND BY RED TAPE

Gasolene Measure Becomes a Law but the Various Officials Await Orders.

As was expected, President McKinley signed the gasolene-on-ferries bill on Thursday last. To all appearances, therefore, motorcyclists and other users of motor vehicles had attained their cherished desire and the way to the ferries was clear to them.

Inquiry by a Bicycling World man, however, developed the fact that this was far from being the case, and that at present at least there is "nothing doing" in the matter. The old rules and regulations are still in force at the different ferries, and the motorcyclist who offers his machine for passage with gasolene tank filled will meet with the same flat refusal which brought about the present agitation.

It appears that the Pennsylvania, Long Island and other railroads operating ferries have laid their heads together and decided to stand pat; that is, to await notification from the Treasury Department or the Inspector General's office before rescinding their present rules. This stand was taken with no unfriendly motive. It was simply that the companies had, in the absence of such notification, no official knowledge of the passage of the bill. As soon as they received this, and were thus safeguarded, they would be very glad to issue a new order.

The Bicycling World man next applied to the offices of the United States Supervising Inspector and the Local United States Inspector. The latter, Captain Petrie, stated that he had received no notification of the passage of the gasolene bill, and that until he did he could do nothing; adding that such matters usually moved slowly.

Even after he was notified, he continued, he would take no action beyond informing all who applied to him that the law had been passed and the prohibition removed. It would be an impossibility for his office to notify every owner or operator of steam vessels, and it was the place of the latter to keep themselves informed regarding such matters.

When this was communicated to the Long Island Railroad people the reasonableness of this view was at once recognized, and it was stated that in consequence of it the company would take upon itself to communicate with the Local Inspector's office instead of waiting to hear from it.

As the matter stands, therefore, nothing can or will be done until the Washington authorities take the initiative and notify their inspectors that the bill has become a law. Immediately after this is done the ferry operators will issue their orders permitting the carriage of gasolene on motor vehicles in accordance with the provisions of the bill.

Observance of "Opening Day."

While it is undeniable that the observance of February 22 as "Opening Day" for the retail trade is not as general or elaborate as it was, it is equally true that the practice is very far from being in a moribund condition.

This year the practice of keeping open house was very generally observed in New York and Boston and throughout New England. Other sections displayed some interest, but nowhere was it as general as in the places named. Good weather prevailed nearly everywhere, in marked contrast to last year, and most of the stores which had made preparations to entertain visitors were repaid by a good attendance.

In New York perhaps the greatest hit was made by S. B. Davega, who now operates three stores in different parts of the city and sells twenty-five different makes of machines. He distributed souvenirs and had orchestras in attendance, which added much to the pleasure of the occasion. At other stores similar entertainment was provided. Lunches (some of them more elaborate than was looked for), liquid refreshment, phonograph selections, etc., aided in making the day an eventful one.

The new models of bicycles were shown, together with some motorcycles and not a few automobiles. Where the motorcycles were exhibited they came in for a great deal of attention, and at nearly every store there were inquiries made for them.

In Hartford, Springfield, Worcester and other New England points the same scenes were repeated on a smaller scale.

GETTING TOGETHER AGAIN

Single Tube Makers Meet and Tire Situation Promptly Shows Signs of Clearing.

In that quiet way in which they have conducted all of their negotiations, the single tube tire manufacturers are making another effort to reach an agreement and relieve the strained condition of the tire market that has existed for the last few months.

The makers got together in this city on Monday last. Just were the meeting was held has not developed, but that it took place is beyond doubt.

Definite particulars are difficult to obtain, but it may be stated, with every assurance of its correctness, that when the meeting adjourned the parties to it were nearer an understanding than for sometime past.

On present information it seems probable that an agreement will be reached within the next ten days, but the situation has been so very strained that no prophecy is safe.

New Brunswick's President Dead.

James P. Langdon, president of the New Brunswick Tire Co., died at his home, New Brunswick, N. J., on Tuesday, after an illness of several weeks. He was seventy-seven years old. For many years he was with the Goodyear Rubber Co., and went to New Brunswick in 1854 as superintendent of the New Brunswick Rubber Co.

Judgment not Against Pakas.

By an unfortunate and aggravating transposition of names, it was stated last week that the Steel Ball Co. had obtained judgment for \$777 against S. L. Pakas, of this city, when the very reverse was the case; it was Pakas who obtained the judgment against the Ball Co.

Dunn Swings a Big Circle.

Harry T. Dunn, manager of the Fisk Rubber Co., this week sets out for another trip to the Golden Gate. On this occasion he goes by way of New Orleans and returns by way of Chicago, thus taking in a vast expanse of country.

BOWMAN OPTIMISTIC

New Yorker Finds no Cause for Complaint and Sees a Good Season Ahead.

Than that veteran New York dealer, Sidney B. Bowman, it would not be easy to find a more cautious yet enterprising tradesman.

He has passed through the fire—started early in the game, boomed with the boom, slumped with the slump. Yet he outlived the latter, and to-day faces the future with a confident belief that the bicycle business is in for a period of renewed, although moderate, prosperity. It is, in his opinion, a long way from being dead or even in the distressingly moribund condition so many people believe it to be.

The Sidney B. Bowman Cycle Co., as the business is entitled, is not dependent on the bicycle business—one reason, perhaps, for placing the greater dependence on the prognostications of its head. Instead it has four strings to its bow, and from them all more than ordinary things are expected. Descending to literalness, the concern is selling bicycles, motorcycles, automobiles and gasoline launches, and even at the present time the greater part of them are able to sit up and take nourishment, so hopeful is the outlook.

"Bicycle business dead?" repeated Bowman to the *Bicycling World* man's question. "Not a bit of it!" he asserted emphatically. "On the contrary, the prospect is better than I have known it to be for years.

"We are selling bicycles right along," he continued warmly, "notwithstanding the season has not yet opened. Scarcely a day passes that we don't make sales. One Saturday recently we disposed of five wheels. We can't complain of that, can we? That does not look as if people had forgotten that such things as bicycles existed, does it?

"I never yet knew a good fall season that was not followed by a good trade the next year, provided the weather was all right. Well, last October was the best October we have had for a number of years. From our bicycle business alone we cleared our entire expenses, and I would have to go far back to find a similar occurrence. We have been selling machines since then, too, and if things don't get better and better I shall be very much disappointed.

"The best thing about it, too, is the class of trade we are getting. It is nearly all for the best machines. The cheap stuff seems to have dropped out of sight—as far as we are concerned, at least—and people want the best they can get; and, best of all, they are willing to pay the price for the best.

"Oh, yes, we still make instalment sales and trade in second-hands. Both plans are safe, entirely legitimate business enterprises if they are done on the right basis. We insist on having unexceptionable references from people we don't know, and get a good sum down, and don't let the deferred payments

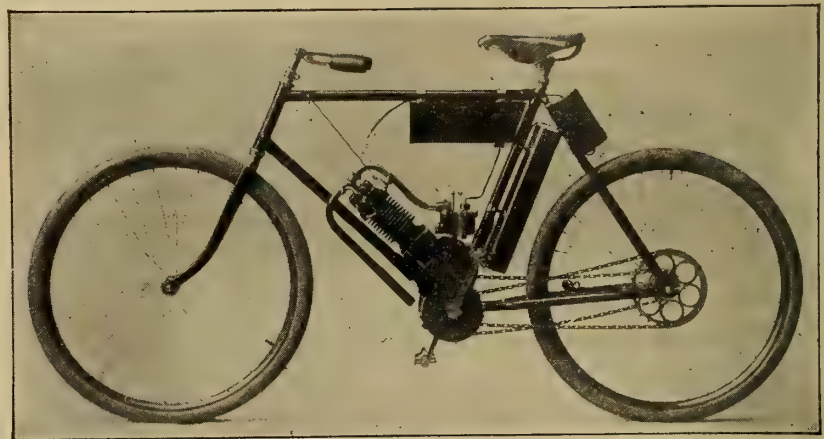
run too long. Owing to these precautions we rarely get stuck.

"It is the same way with second-hands. We never overstock ourselves, and as we make only reasonable allowances we have little trouble in getting rid of the machines. Five to ten dollars is the price at which most of the wheels are taken in, and we sell them right off the floor without any great effort. There's a certain demand for such machines, and we fill it."

Springfield's Likely Candidate.

In launching the motor bicycle here shown the Hampden Mfg. Co., of Springfield, Mass., take occasion to remark that "it is designed and built with a full understanding of the extraordinary strains to which such a machine is subjected."

It is compact and has a narrow tread, 6½ inches. The motor is built into and forms part of the frame, thus insuring a permanent alignment of the driving sprockets—an im-



portant point, the Hampden people say, as the vibration of a high-speed motor makes a rigid attachment a necessity.

The carburetter is of a new design, float feed, and is provided with a throttle for varying the engine speed. The machine is controlled entirely from the handle bars.

As illustrated, the machine has a maximum speed of twenty-five miles an hour, and its makers claim it carries gasoline sufficient for a run of seventy-five miles; larger tanks can be substituted so as to allow a range up to two hundred miles.

The weight of the machine complete is 80 pounds; wheel base, 48 inches; wheels, 28x 1¾-inch tires; frame, 23½ inches high; tread, 6½ inches; coaster-brake rear hub.

Mr. Clemens, of the Hampden Co., was among the first to become interested in motor bicycles, and for two years has been perfecting the bicycle that has just made its appearance.

French Favor Early Shows.

The French Syndicat des Fabricants de Cycles has resolved that the Salon shall be held annually, but not later than the month of December.

IN FIRST PLACE

We Lead not Only in Cycle Exports but in Grand Total—The Figures.

The United States now stands at the head of the world's exporting nations.

The complete figures for the calendar year 1900 when compared with those of other nations show that our exports of domestic products are greater than those of any other country. The total exports of domestic merchandise from the United States in the calendar year 1900 were \$1,543,013,659; those from the United Kingdom, which has heretofore led in the race for this distinction, were \$1,418,348,000, and those from Germany \$1,050,611,000.

Additional interest is given to the first rank which the United States now holds as an exporting nation by the fact that a quar-

ter of a century ago she stood fourth in that list. In 1875 the domestic exports of the United States were \$497,263,737; those of Germany, \$607,096,000; those of France, \$747,489,000, and those of the United Kingdom, \$1,087,497,000.

To-day the United States stands at the head of the list, the United Kingdom second, Germany third and France fourth, with the figures as follows: United States, \$1,453,013,659; United Kingdom, \$1,418,348,000; Germany, \$1,050,611,000; France, \$787,060,000. All of these figures, it should be remembered, relate to the exports of domestic products.

Thus in the quarter century the United States has increased her exports from \$497,263,737 to \$1,453,013,659, or 192 per cent; Germany from \$607,096,000 to \$1,050,611,000, or 73 per cent; the United Kingdom from \$1,087,497,000 to \$1,418,348,000, or 34 per cent, and France from \$747,489,000 to \$787,060,000, or 5 per cent.

Americans who balk at the price of American motor bicycles, \$200, should consider their cousins across the sea. The most prominent English bicycle of the type lists at £66—\$330.

REGULATING SECOND-HANDS

Bay State Legislature Considering a Law
Requiring That Records be Kept.

Although aimed at automobiles, a bill introduced in the Massachusetts Legislature recently, designed to give the cities and towns authority to regulate the speed of vehicles, applies also to motorcycles.

The bill, which is termed House Bill No. 591, contains but two sections, which are as follows:

"Section 1. A city or town may by ordinance or bylaw prohibit persons from riding or propelling, or causing to be propelled, vehicles other than those propelled or drawn by horses or persons upon any of the streets or ways therein at a rate of speed which it deems inconsistent with public safety or convenience, and may by ordinance or bylaw prescribe penalties for violation of such ordinances or bylaws not exceeding \$100 fine or ten days' imprisonment, or both such fine and imprisonment for any one offence.

"Sec. 2. Any person violating such ordinances or bylaws may be apprehended and punished as in such ordinances or bylaws provided, in the same manner as is now provided by law for the apprehension and punishment of persons violating any ordinances or bylaws of cities or towns."

The measure is open to criticism in one and perhaps two respects. It permits each city and town to regulate the speed of vehicles, instead of making uniform regulations covering the entire State; and it places all motor-drawn vehicles, motorcycles included, although they are not specifically named, in a class separate and distinct from those drawn or driven by horses or persons. This is a division which may be productive of either good or harm.

The bill introduced in the Connecticut Legislature a few weeks ago, and printed in full in the *Bicycling World* of February 14, was a measure infinitely superior. It provided for uniform regulations throughout the State, and, furthermore, defined these, placing the maximum speeds at very reasonable limits. Quite a different result is likely to follow the Massachusetts measure if it is passed.

It is understood to have been drawn up in consequence of the reckless driving of automobilists so prevalent in the Berkshires, and the speed limitations under it are likely to be severe in that vicinity. If only the offenders were affected by such drastic measures it would not matter so much. But its effect is likely to be much greater, not only there, but elsewhere throughout the State, and to work material injury to motocyclists and other users of motor vehicles.

Recommend Their Discharge.

At Waterbury, Conn., last week, Referee Newton recommended a discharge in bankruptcy for Remillard & Valois, who conducted a store at 383 South Main street, that city.

McAdam's New Metal.

Some months ago the *Bicycling World* described an aluminum solder which had been discovered by a Brooklyn man named McAdam, and which was claimed to solve the problem which has so long puzzled workers in aluminum, viz., the production of a solder which would firmly and permanently unite two pieces of aluminum.

Last week the *Bicycling World* man called at 179 Broadway, Room 31, and examined work which had been done by this solder. It bore out the claims made for it, the two pieces of metal being apparently as firmly united as if brazed.

It was also learned that a company was being formed by McAdam and F. W. Beardsley to exploit a new metal termed McAdam, a form of aluminum. With the lightness of the latter metal, it possesses infinitely greater stiffness and strength, tests having shown the latter to equal 66,000 pounds to the square inch.

This metal is expected to take the place of steel to a considerable extent in many lines of work. Bicycles and motor vehicles particularly are had in mind, the extreme lightness of McAdam, coupled with equal or superior strength as compared with steel, rendering it very valuable for these purposes.

Further details are promised when the organization of the company is more advanced.

Can't Agree on Price.

It appears that the announcement made some little time ago of the sale of the Middletown (Conn.) plant of the Worcester Cycle Mfg. Co. to the New York Motor Vehicle Co. was premature. President Dunn of the latter concern was in Middletown last week to confer with members of the local Board of Trade regarding the occupancy of the factory. It was learned that the company has been unable to agree with the Central Trust Co. as to the price for the factory. If something definite is not done soon Mr. Dunn intimates that the company will necessarily locate elsewhere.

One Coaster-Brake's Strong Claims.

Of the newer coaster-brakes there is none that has more claims to consideration than the Universal, made by the Universal Coaster Brake Co., of Buffalo, N. Y. The array of features and talking points that are brought to bear is striking. The device contains neither balls nor ratchets; the brake releases automatically and permits a "tight pedal" and an absolutely free wheel either forward or backward. Absence of lost motion, dust-and-waterproofness and a liberal guarantee are other strong arguments which the Universal people bring to their support.

Where Lamps are Wanted.

Vancouver, B. C., is enacting a law requiring all bicycles to carry lamps, of which there is said to be but a small stock on hand. The fact should considerably interest the lamp manufacturers.

MORE LEGISLATION

Unlike Connecticut, Massachusetts Would
let Each Town Regulate Motorcycles.

To regulate the sale and exchange of second-hand bicycles is the avowed object of the bill introduced in the Massachusetts Legislature to which reference was made in last week's *Bicycling World*.

The bill was introduced in the House of Representatives on February 1, and referred to the Committee on the Judiciary. Its full text is as follows:

"Section 1. Pawnbrokers, dealers in junk, old metals and second-hand articles, manufacturers of, dealers in bicycles and repairers of bicycles, who shall buy or take in exchange any second-hand bicycle, shall enter in a book, which shall be written in English, a description of the bicycle, the name, residence and general description of the person from whom and the time and hour when such bicycle was received, and also the name, residence and general description of the party to whom such bicycle is sold or bartered by said dealer. No such dealer shall remove, except for repair, a nameplate, or destroy or alter the numbering on such bicycle within thirty days from the time such bicycle was received. Such book and the bicycles mentioned therein may at all times be examined by any police officer, constable or selectman.

"Sec. 2. Every such pawnbroker, dealer in junk, old metals and second-hand articles, manufacturers of, dealers in and repairers of bicycles, who shall neglect to make the entries in a book, written in the English language, as provided in Section 1, or who shall refuse to allow said book and bicycles to be examined by the proper officers, or who shall remove a nameplate or destroy or alter the numbering on such bicycle contrary to the provisions of Section 1, shall be punished by fine not exceeding \$20."

Motorcycles for Making Women Beautiful.

Anna Held, who was the first to employ a motorcycle—a four-wheeler—on the stage, has been telling—or her press agent has been telling—womankind how to become beautiful. She—or he—attributes much of her beauty to her motor tricycle, which she—or which he—says she rides every morning at 6 o'clock and again before dining. She—or he—finds no trouble in riding the machine; it makes her—or him—"feel like a swallow," or as if she—or he—were "riding on the clouds." Anna's indorsement will do the motorcycle no harm, but the average individual will take her "daylight rides" with the law's allotment of salt.

According to a newspaper story, William Jennings Bryan has placed an order for a motor bicycle. The story, however, lacks confirmation.

"Keep Your Eye on the Little Blue Wheel!"



Bicycle racing is a long way from being dead. THE NATIONAL has always been a popular wheel with the boys who buy their bicycles. It's staunchness, reliability and easy-running qualities make it a favorite.

The Model 41 is our latest racing production. "The Little Blue Wheel" will be in many a finish this year, and its riders will be just as enthusiastic as ever.

It gives the rider a good position—different from others—is made to run easy and to stand the hard knocks which are inevitable.

It's in a class by itself.

NATIONAL CYCLE MFG. CO., BAY CITY, MICH.

GET OUR CATALOG.

Fisk Tires



You judge a watch by its works—not by the case. All tires look alike as you glance at them, but there is just as much difference in them as in watches. They run the gamut of worth from mediocre to perfection.

The test comes in service. The tire that is light to ride upon, that overcomes vibration, possesses speed, is the tire to ride and sell.

The rider is the final judge of virtue in a tire. Riders of Fisk tires are content to use nothing else. Buy Fisk tires for next season, try them in all the honest tests of service without abuse, and if you do not say when next fall rolls around that they are good, honest, full-value tires and a little more, you will be the first man to hold that opinion.

They are first because they last.

Ride the Fisk and run no risk.

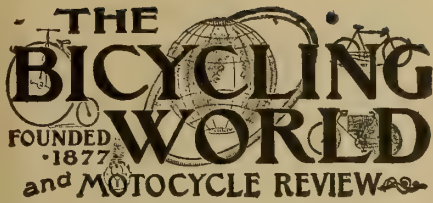
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To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, FEBRUARY 28, 1901.

Separate the Sheep From the Goats.

As the selling season approaches more nearly it becomes plainer than ever that intelligent buying is not to become a lost art.

Although there is undoubtedly a closer approach to uniformity in design than ever before, it is equally true that in material and workmanship, as well as in finish, there is a greater disparity existing between the new patterns than there has been for a great many years.

To put it plainly, along with the machines which embody pretty nearly everything that is best in cycle construction there are to be found others which go to quite as great lengths in the opposite direction.

More than ever before is it true that price is not a criterion of value. The buyer—whether he be dealer or rider—who buys on price alone is pretty certain to be disillusioned before the season has advanced very far, and the shock is likely to be a pretty rude one when it does come.

It is, of course, evident that this deterior-

ation in quality is due to a desire to effect a saving in cost. And while it does not affect anything like a majority of the machines on the market, it is still a very serious matter.

It is aggravated, too, by the fact that the tendency is toward an improvement in price and a betterment of the entire business. Buyers are showing an increasing disposition to take better machines, and no longer balk at the reasonable increase in price which is asked for them. Greater comfort, durability and utility result from the increased expenditure, as a rule, and it is a good thing considered from any viewpoint.

But if buyers pay the price for better machines and fail to get them such a result would be nothing short of a calamity. They would have reason for the indignation they would certainly feel, and the effects would be felt by the entire trade.

For this reason the importance of careful buying cannot be too strongly impressed on the trade. Every effort should be made to see that there is no masquerading or sailing under false colors.

Present Status is in Anomaly.

It is being urged against the bill now before the Massachusetts Legislature legalizing the bicycle as a vehicle when travelling over the public roads that such action would greatly increase the liability of the country towns for damages, as well as necessitate better roads than can be afforded.

That such fears are fallacious is proved by the fact that it was not until last summer that the extraordinary decision of the Massachusetts court was made; until then it was supposed, of course, that the bicycle had the same rights as other vehicles; yet no avalanche of suits resulted. Nor would they come to the front now if the bill in question were passed.

Its passage would, in fact, merely place the bicycle in its normal position and remove an anomaly which can scarcely be defended.

In the Role of Moses.

From this distance it appears that the English trade and press, generally speaking, have decided that they will not like motor bicycles.

We have before remarked that this state of affairs is no cause for American tears; it simply creates opportunities for American makers of which they will avail themselves in due course. But we return to the subject because the spectacle of an American resi-

dent abroad playing the part of Moses attempting to lead the blind children of King Edward out of the wilderness is too rich to pass unnoticed.

Moses, in the person of Joseph Pennell, has had mainly jeers and derision for his trouble. Few of the English papers treat him even half decently.

Illustrated lectures and demonstrations of the same subject should, however, serve a better purpose in this country. The idea is one which a club or even dealer may well turn to advantage.

Cost Must be Considered.

When a business is prosperous, when sales are large and easily made, when the margin of profit is ample—then success is more than easy; it is almost certain.

At such times the calculation of cost is highly important, but it is not absolutely necessary. It is quite possible to dispense altogether with a cost book.

But when the tide turns, when prices drop, the demand follows suit and competition increases apace—then the concern is absolutely dependent upon information which can be obtained in no way except through the cost book.

Furthermore, the cost accounts must be correct. It is no easy matter to have them so, but the task can be accomplished, and no concern in the trade to-day can prosper unless it is.

A prominent manufacturer remarked recently that he could point to a number of machines which were being sold for less than they cost to make. Either such selling must cease or the creditors of the concerns would some day have an unpleasant moment.

As for him, he added, the day had passed when he would compete for business on such terms. He knew to a cent what his machines cost, and where he could not sell them at a fair advance over these figures he preferred not to sell them at all.

Such unbusinesslike transactions are becoming scarcer every year; but until they almost completely disappear the trade cannot be considered an entirely healthy one.

Dealers Will Have Their Turn.

One thing about the gasoline motor which is particularly pleasing to the average dealer is the difficulty, almost the impossibility, of adapting it to existing bicycles.

Since the adoption of the safety a dozen years ago no improvement has been brought

out that could not be placed on the machines already in use. The best way to get it was to buy a new wheel, of course, but the rider who wanted to save money could always go to a dealer or repairer and have the improvement incorporated in his bicycle.

This fact was taken advantage of in an enormous number of cases. Pneumatic tires were fitted, frame designs were changed, coaster-brakes were added in hundreds of thousands of cases, while less important changes were being constantly made.

All this made work for the repairer and put a great many thousands of dollars in his pocket. But it also hurt the sale of new machines, and, could a balance have been struck, there can be no doubt that a net loss to the trade would have been recorded.

In all of these cases, however, the cost of the bicycle was very much greater than that of the improvement. If a rider had a satisfactory machine he usually preferred to expend a small sum and have the new feature applied to it, rather than make a large outlay in order to get a new bicycle.

Even in the case of the pneumatic tire there was a big saving effected by doing this. It cost at first \$40 to have new rims and tires put on, but as pneumatic-tired bicycles, new, brought anywhere from \$135. to \$175, and the trade fought shy of making trades, it is easy to see why there was such a rush to have old wheels changed over.

With motors, however, the matter is just reversed. Bicycles to-day are low and motors are high. The cost of fitting a good motor to an existing bicycle is not very much less than that of a complete motor bicycle.

If to this expenditure is added the cost of changing the old machine to meet the new strains put on it—the substitution of a heavier fork, at least, being an absolute necessity—there is very little to choose between the two.

But even if there was a considerable difference, most riders would pay the difference rather than take the risk involved in using such a makeshift.

All of which makes it plain that while the repairers will have plenty of work in the future, they will rarely be called upon to transform ordinary bicycles into motor bicycles.

Trusting to Luck.

While they make for the health of this year's business, one recent and another comparatively recent failure again bring to light the "wildcat" methods of doing business

that have contributed to the hurt of the cycle trade.

In both instances the manufacturers concerned courted the large jobber, the merchant who placed orders for from two thousand to ten thousand bicycles, and who is never wanting courtship of the sort. While thus seeking the favor of the jobber, the manufacturers concerned also marketed wheels under their own nameplates.

The wheels were identical, but the prices differed. The figures to jobbers scraped bottom; those to agents and the other small buyers rose as high as those concerned dare lift them.

The idea was to make these small orders pay the factories' bills. The jobbers' orders merely kept the machinery in motion. And it was on this thin ice that the two makers skated for several years.

Ultimate disaster was certain, but how it was so long averted is one of those things that only a receiver may be able to learn.

The facts stated are not secrets. It was trade talk that the manufacturers involved were doing three-fourths of their business without profit and endeavoring to make the other fourth balance the scales; but notwithstanding they seemed never to lack for credit, which is, after all, the greatest cause for wonderment.

Perhaps all these things are necessary to the final shakedown, which will leave only the fittest to survive; but, whether or not, such ways of doing business are more than passing queer.

A Halt Called at Last.

Too little attention has been given to the indications that the trade is coming to take a saner view of the price problem than has been its wont for a number of years.

When the downward movement began, now seven years ago, the reduction then made was asserted to be one which would bring the price to a figure where it would stay for years. Similarly, each reduction since then has been heralded as the final one, with the accompanying assurance that bed rock had been reached at last.

It is scarcely necessary to say that until this year these prognostications have always proved to be erroneous. A further cut in price followed each one, and it became a habit with trade and public to look for still another whenever the time for fixing the coming season's prices approached.

So ingrained became this habit that even now the public scarcely realizes that there has been no real reduction this year. It is

still farther from understanding that the turning point has at last been reached and an appreciation—even if but a small one—instead of a depreciation in prices set in.

Yet such is the case, and for a very simple reason. The cuts went too far. Instead of stopping at a point where if there was no profit there was at least no loss, they continued until figures were reached which meant actual, and in some cases heavy, loss.

It is very plain that such merchandising could not be long indulged in. Concerns bankrupt in reputation as well as in cash could sell goods on this basis as long as it had them in its warerooms, but they could not add materially to the stock.

Others, even if sound, could dispose of overstocks at a loss, but such experiences were certain to cause them to dread the fire and to see that such a thing did not occur again. But when such supplies were cleaned out, then it was plain a halt must be called.

That time has come and that halt has been called. The 1901 prices demonstrate this indisputably, and it is almost equally certain that there will be no further backward step.

It is true that there are still machines to sell at prices which mean a dead loss for some one; and that they are being disposed of to the sore detriment of new and profit-earning goods which could be sold in their place.

But their number is growing beautifully less, and it is only a question of time when they will have disappeared entirely.

Most comforting thought of all is that when they are gone there will be none to take their place.

"We quite agree with our American contemporary, the *Bicycling World*, that some of the words brought into the moting world do not enrich the language and serve only to confuse. Now, why in the world should a motor tricycle in the New York show be called an 'automotourette'?"—*English Cycling*.

So far, so good. But "moting" is quite as bad and as confusing and meaningless as "automotourette." Cut it out!

As a compact and attractive substitute for belts and chains it seems reasonably safe to predict that bevel gears will ultimately play a considerable part in motorcycle construction, and, indeed, in motor-vehicle construction generally. The French motor bicycle, illustrated on another page, marks the first step in that direction. The particular method of application may be crude, but it is uncommonly interesting because of the developments it suggests.

FIRST WITH BEVELS

Frenchman Uses Those Gears to Drive Motor—Other Developments Abroad.

Paris, Feb. 15.—During the last days of the Automobile Show in the Grand Palais several new motor bicycles bobbed up in unexpected corners.

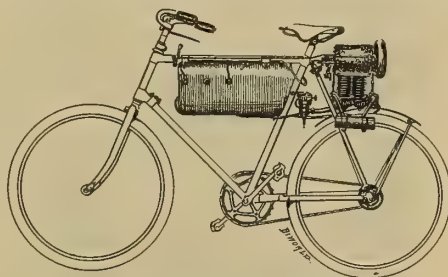
The Boillod was one of them. It is entirely different from the others exhibited in the sense that the maker has not relied upon the standard types of motors, but has devised a two cylinder engine which is inverted at the back of the bicycle. It seems like splitting hairs to build a one-horse motor with two cylinders, but, at any rate, it gives plenty of radiating surface, and has a very neat and taking appearance. It is carried on a bed bolted to the backstays just above the wheel, and the motor shaft is thus about on a level with the top tube. This topsy-turvy method of fixing the motor has been adopted so as to allow of the motor shaft gearing on to a bevel rod which runs in a tube fastened to one of the backstays, and is connected with a bevel wheel on the hub of the driving wheel. An objection may be raised that the lubricating oil may find its way down into the combustion chamber and get burned on the valves, but this is a matter that can only be judged by actual testing. So far as appearances went, it was one of the most eye-pleasing motor bicycles in the show. Its maker is E. Boillod, of Besançon.

Still another novelty was the Petrocyclette, shown by E. Arnault, 231 Boulevard Pereire, Paris. The arrangement is much the same as in some other types of bicycles, the motor being fixed inside the frame above the bottom bracket and power transmitted to the rear wheel by a chain instead of the belt usually employed. The novelty in the motor is the method of air cooling. The cylinder has an air jacket composed of an outer cylinder of copper, with ribs. A funnel is fixed near the top, pointing in the direction in which the bicycle is travelling, so that a draught created by the forward drive is forced into the jacket, and issues from another aperture at the bottom. The idea is good, but the ribs on the outer cylinder seem a little superfluous unless they are intended to conduct heat from the combustion chamber. The motor has a friction clutch, which is very useful on bicycles, and the carburettor is of the pulverizer type, in which the gasoline is drawn up by suction and mixed with the air as it enters the cylinder. The tank, suspended from the top tube, carries about a gallon of gasoline.

The Werner bicycles made a good show, but there was no change in the models except that the steering handle has been heightened to facilitate the connection of the exhaust pipe with the tube which serves as a silencer. The Werner bicycles have been improved a lot since they were first

brought out, three or four years ago. They were not very elegant things at that time, and their success shows what can be done by makers who won't allow their spirits to be damped by reverses, but constantly strive after improvements.

It was rather surprising to find the motor bicycle exhibited in greater numbers and in greater variety than the three-track machine; but, as I have said in a previous letter, this is because the cycle maker finds it to his interest to strike out on a new line of his own rather than go into competition with the big firms, who are able probably to turn out bicycles more cheaply than the new makers, and, having a much larger experience, can perhaps give better satisfaction to customers. Besides, a trade can be done in bicycles among every class of cyclist, for if a man can buy a pedal-driven machine he will not stick at paying a little more for a motor bicycle. On the other hand, people, after going through the show, have been saying that the motor tricycle and quadricycle are on the down grade; but in saying



BOILLOD MOTOR BICYCLE.

this they are jumping at hasty conclusions, and are guided by the comparatively small number of tricycles to be seen at the show. The fact is that there is, after all, very little scope for originality in the designing of tricycles, which are already giving such good results that makers do not see how they can improve them by departing from the usual lines, and thus each firm has merely shown one or two tricycles and given up the rest of their stand to other specialties.

The most noteworthy thing about the tricycle is the great uniformity in all the different makes exhibited. In this matter De Dion et Bouton take the lead, and any improvements carried out by them in the machines are promptly adapted by other makers, so that you see the features of the De Dion tricycles reflected in nearly all the machines on the market. About a couple of months ago De Dion brought out a tricycle with a friction clutch and change-speed gear, which I described at the time of its first appearance, at the hill-climbing trials in November last. The firm also now increase the efficiency of their motors by water-jacketing the combustion chamber and carrying the water in one half of the cylinder tank fixed behind, at the ends of which are small radiators. In justice to the Peugeot company, however, I ought to point out that De Dion et Bouton are only popularizing ideas that were adapted to the Peugeot machines a year ago, for at the Paris Exposition this firm exhibited a tricycle with all the fea-

tures of the new De Dion machine, and showed that the fixing of a water-cooled motor with a friction clutch and change-speed gear was quite as practicable on the tricycle as on the carriage. This tricycle was also to be seen on the Peugeot stand in the Grand Palais, but I am afraid that, owing to the high price asked for it, the new Peugeot tricycle can hardly compete successfully with some other makes, though in the manufacture of small motors, gearing and cycles the firm have one of the best reputations in this country.

The cycle makers are no longer relying on De Dion et Bouton for their motors, but are going in for some of the other makes, such as the Aster and Buchet, which have been growing enormously in popular favor during the last year or two. The Aster is a particularly efficient motor, and, having a relatively long stroke, the gases undergo a greater expansion than in most other types of engines, and the ribs of the corrugated sheet copper seem to be a better conductor than the ribs cast with the cylinder. The Aster motors are probably used on more than one-half of the tricycles turned out by firms other than De Dion et Bouton and their agents, and they seem in all cases to be giving highly satisfactory results. The Gladiator company show a new tricycle with a $3\frac{1}{2}$ horsepower Aster motor, with water-jacketed combustion chamber and fitted with friction clutch and change-speed gear, and the machine is built on excellent lines, with a first-class finish. Like all the tricycles, the machine is easily converted into a quadricycle by bolting the extensions of the fore-carriage to the bottoms of the backstays.

In this connection I may say that the trailer has gone entirely out of date; not a single one of these attachments was to be seen at the show. Indeed, it is now extremely rare to meet a tricycle with a trailer in this country. The Gladiator company also exhibited a tricycle with a $2\frac{1}{2}$ horsepower air-cooled motor of their old pattern, and several other makers are also turning them out for customers who do not care to pay for the improved machines. Barré, of Niort, exhibited a nicely built quadricycle with a De Dion $2\frac{1}{4}$ horsepower motor, but without clutch and change-speed gear, which he is offering at \$300 complete with all accessories—that is to say, at a lower figure than was being asked a year ago for the tricycle alone. For the latest type of quadricycle the price is usually \$400.

The tricycle has given way almost entirely to the convertible quadricycle, and in some cases there is a tendency to make the quadricycle a fixed type, so that with the higher-powered motors and friction clutch and change-speed gear there is no longer any necessity for fixing pedals and chains. A fine machine of this type was exhibited by the Aster company, who had one of their $3\frac{1}{2}$ -horsepower water-cooled motors, with the water carried in a tank behind the seat, having a capacity of three gallons. The gasoline tank, carrying a gallon and a half, is suspended from the top tube, so that the

splrit will not be heated by being placed in too close proximity with the water tank. The clutch and the two changes of speed are operated by a lever on the top bar, with a forward movement giving the high speed, the middle throwing out the motor and the back movement giving the low speed. As there are no chains or pedals, the gear box is hermetically closed, and the gear is thus entirely protected from mud or dust. The rear seat is of the broad, padded pattern, with back rest, and the front one is really like an ordinary carriage seat, which gives the quadricycle the appearance of something more than a cycle and makes it look as comfortable as the voiturette. This is a tendency that is likely to have a big influence on motorcycle construction in the future, as there is no doubt that, now makers are able to fit higher-powered motors and have all the driving conveniences of the light carriage, they are trying to make the quadricycle as comfortable and indispensable as the small vehicle.

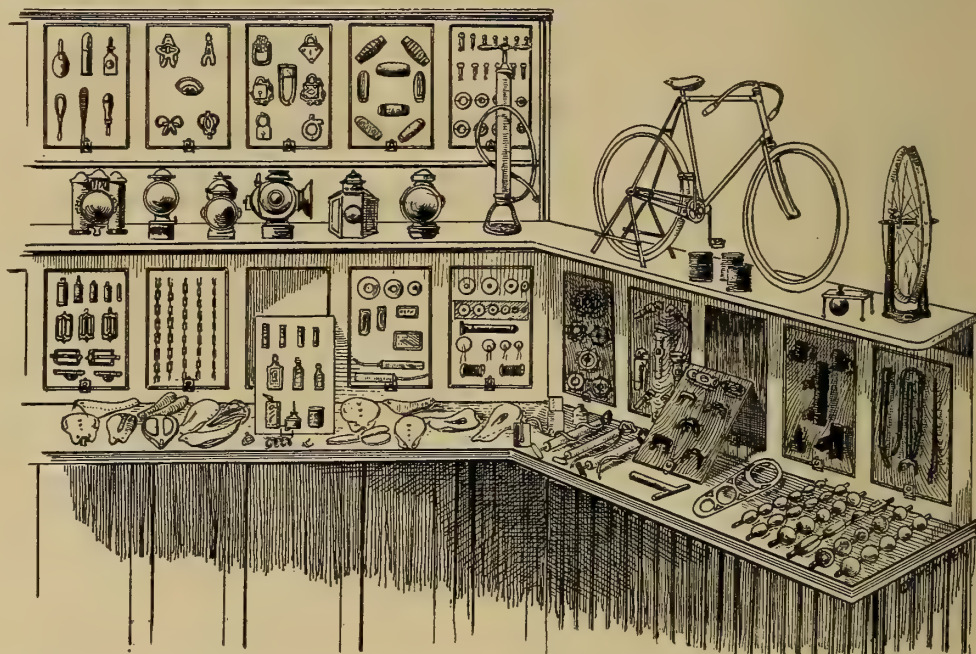
The Buchet motor is being used more for light carriages than for motorcycles, but nevertheless there were several tricycles exhibited with this mechanism, and probably the most extraordinary machine on view was a tricycle exhibited on the Boyer stand with a two-cylinder motor developing as much as 12 horsepower. Tricycle motors have been growing pretty considerably in power of late, and when professionals brought out tricycles with motors developing 6 horsepower they were regarded as something phenomenal, but this jump to 12 horsepower points to possibilities that are likely to leave all previous speed performances in the shade. With a couple of big pistons pounding away on the back of the tricycle, the machine has, of course, to be made exceptionally strong. It has a very long wheel base, and the seat is about midway between the axle and the front wheel, while the backstays, stretching away behind, carry an enormous cylindrical tank that hangs over the gear box. The machine is fitted with what is known as the Truffault fork, which is built of steel strips, with the top terminating in a rod which engages in a tube fastened to the head tube and plunges against a spring forming a buffer to absorb the vibration. The fork is kept in place by a couple of pieces from the shoulder of the fork that press against the sides of the tube. The ends of the fork are strongly stayed by steel strips to the end of a forged piece that curves down behind the front wheel from the bottom of the head tube in the form of a mudguard.

To sum up the situation of the motorcycle as seen in the exhibits at the show, it may be said that the bicycle is making much more progress than might have been suspected, not only in public favor, but also in the devising of new types and utilizing the power to the best possible advantage; in fact, it looks as if the motor bicycle will find an almost unlimited scope for trade among the general body of cyclists, who are beginning to appreciate the advantages of

these little machines for getting about the country. As for the old type of tricycle with $2\frac{1}{4}$ -horsepower motor, it is giving way to machines with at least $3\frac{1}{4}$ horsepower, usually water jacketed either wholly or in part, and with clutch and change-speed gear, so that it may be more suitable for conversion into a quadricycle; and the fact that the tricycle is taken up more on account of its convertibility is proved by its being sold with front-seat attachments, while there is a tendency, now that big powers have dispensed with pedals and chains, to build comfortable quadricycles of fixed types, so that the two-seated machine is likely to oust the low-powered tricycle from the market, unless, of course, fashion should change again in its favor. The whims of the public vary so much in selecting what they think the most suitable type of machine that it is not safe even to say that the high-powered quadricycle, which has been evolved from the experience of the past, represents a permanent type.

Barker's Effective Sample Display.

In treating last week of the business of C. B. Barker & Co. the *Bicycling World* remarked the effective and convenient arrange-



ment of the firm's sample room. As was then stated, words cannot convey a proper idea of the detail of the room or of the effect obtained; the accompanying illustration of one corner of it will, however, go far to show how well the praise is deserved.

The sample room occupies the best lighted corner of the salesroom itself, from which it is partitioned by head-high partitions of yellow pine. Inside panels, also of yellow pine, are arranged as pictured. The samples of the various articles are fixed on the panels, as shown, and, the panels being removable by merely springing a latch, the goods may be taken down and examined at point-blank range.

Articles too large to be fastened to the panels are displayed on the shelving, which is covered with red baize.

The room is really a cycle show in miniature, and must impress all who see it. Variations of the idea would add to the attractiveness of any store.

Orvis's way of Doing It.

When a man believes in an article and goes about selling it in an energetic manner it is dollars to doughnuts that he will make a success of the matter.

Such has been the experience of D. E. Orvis, of D. E. Orvis & Co., of Buffalo, who market the Reeves spring seatpost. Last year he started out filled with a belief that he could sell this seatpost and a determination to do so. He traversed Buffalo from one end to the other, taking in trade and public in his labors, and expatiating on the merit of spring seatposts in general and the Reeves in particular.

So confident was he that it would bear out the claims put forth for it that he made a practice of placing it in the hands of riders for trial purposes; if after they had used it for a short time they did not like it, or thought that it was not worth the price, they were under no obligation to buy it; Orvis was ready to call and take it away. But if their conclusions were otherwise, if they were convinced that it was an adjunct to cycling which they could not afford to be

without, he collected the money instead.

The result was that in the course of a few months Orvis sold one thousand of the posts right in Buffalo, and had a thousand satisfied customers who lost no occasion to sing the praises of the Reeves post. With such a record back of him it is not surprising that he prepared for operations on a larger scale, or that the post is now being sold largely throughout the country.

"Warm" Advertising Matter.

In addition to their truly remarkable catalog, the Miami Cycle and Mfg. Co., of Middletown, Ohio, have issued several other equally clever advertising conceits, that cannot fail to attract attention and create comment. Girls figure in two or three of them and the effects obtained are what the vernacular describes as "warm."

PERSONS'S VIEWS

The Man, his Saddle and his Cleanings on a Recent Western Trip.

Without aiming at fulsome praise of the particular article, it is only fair to say that one of the best exemplifications of the truth of the assertion that quality is rising superior to price is the Persons saddle.

While the Persons people did a good business in 1889 and a better one in 1900, one need not accept the Persons' word for it that 1901 will prove their banner year. The fact is unmistakable, and is borne out by the testimony and orders of not a few of the leading makers and jobbers. There is no saddle more talked about or that is meeting with more favor where price is not the all-important consideration.

The situation holds encouragement for all, as the Persons Mfg. Co. have held resolutely and unvaryingly not only to their particular type of saddle and its price, but to their belief that quality must ultimately rise superior to mere figures and bring their reward in its train.

These observations are called up by Mr. Persons's return from a trip West, which served to still further extend the interests of his saddle. His visit took him into nearly all the larger centres between New York and St. Paul, and, strange to say, he found the trade west of the Mississippi further advanced and in better average condition than the eastern half of the country. Of the large cities he thinks Chicago has been affected most by the decline of cycling interest, a condition that appears the worse by contrast with the very great number of riders and dealers that marked Chicago in its heyday.

Persons is an enthusiastic motocyclist; he was one of the first to take up the new machine, and, owning one of the most powerful tricycles in this country, he has become one of the most expert riders and operators. Naturally he talked motorcycles on his recent Western trip, and with scarcely an exception he found every one interested and watching developments with keen eyes. Several who would not discuss saddles were more than ready to talk motorcycles; in fact, Persons learned of experiments going on in more than one factory whose owners had not been suspected of intentions of the sort. Of those whose intentions are known, Persons found the Patee people in Indianapolis preparing to swing most of their energy and effort to the motor bicycle; Patee is going into the matter in a large way, and promises to be a big factor in the business.

The larger dealers and jobbers on whom Persons called were likewise interested. Several already had sample machines, and were making the most of them, while the others are not lacking in appreciation of the rejuvena-

tion of business that is promised by the bicycle that "robs hills and headwinds of their terrors." Although he uses a tricycle, Persons found the current of interest centred in the motor bicycle, which he himself believes will outsell the tricycle twenty to one.

Coasting Past and Present.

"The Story of the Morrow Coaster-Brake" is the title of the Eclipse Mfg. Co.'s 1901 catalogue, and it is only fair to say that the story is well told and attractively illuminated by a series of silhouettes. The publication itself is of pocket size, attractively covered, and makes the most of its material.

Among other things, the booklet draws attention to the old way of coasting and "trusting to luck"—a way too often overlooked in this, the heyday of the coaster-brake.

"The old way of placing the feet on a pair



NEW YORK BRANCH: 214-216 WEST 47th ST.
BOSTON BRANCH: 80 BATTERY MARCH ST,
Near Fort Hill Square.

of coasters attached to the front fork was not only awkward, but absolutely dangerous," rightly says the Morrow catalogue. "When one wanted to stop he had to take his feet from the coasters, try to catch the pedals when they were revolving at the rate of a mile in two minutes and wobble all over the thoroughfare before he was even ready to circumvent danger. It meant many a serious accident and the risk of losing his precious neck. A rider actually felt lucky then when he got out of a tight squeeze without a broken bone or scraped cuticle. The Morrow way is so much safer, more efficient and pleasurable. The feet are always on the pedals, the machine is ever in hand to avert obstacles."

Single Tube Tires.

Contracts for season's trade solicited at prices below Licenses. Protection guaranteed. Mineralized Rubber Co., 18 Cliff St., New York.

THOMAS'S TERMS

They Bring in Money in Bunches—Ferguson Reports the Rush is on.

One of the busiest men in the trade these days is that hard worker, E. L. Ferguson, of the E. R. Thomas Motor Co. He dropped in last week at the Bicycling World office just long enough to shake hands and say a few words about the motorcycle situation at the present time.

"We are still looking forward to the time when we shall be able to fill orders on receipt," he said, "but that time hasn't arrived yet.

"Everything is working smoothly at the factory," he continued, "and we are shipping plenty of machines. But the orders and applications for agencies are still coming in at a rate that taxes us to keep up with them. There is not the slightest sign of a let-up, and probably will not be for some time to come.

"It's an extremely satisfactory business, too. Our invariable terms are one-third cash with order and the balance against bill of lading. Even these stiff terms do not seem to stagger people, however. They want motorcycles, must have them, in fact, and neither price nor terms prevent their getting them.

"I am on my way now to the express office to send off a lot of money I have been collecting for machines delivered. I got most of it late yesterday afternoon, and had to carry it with me until to-day. If I had been sandbagged last night the sandbagger would have made a fine haul, I can tell you. I went to bed last night with a big roll of bills placed around my leg, inside my stocking. It was just like a big bandage, but it served the purpose and made an excellent hiding place, so I have no cause for complaint.

"We have had to lay out a lot of money at the factory, getting ready for this business, but things are coming our way now in great shape. Dealers everywhere are tumbling over themselves to get motor bicycles and as we are in a position to deliver promptly we are getting the benefit of this fact." And the indefatigable Ferguson departed for the express office, having in train a Jersey dealer who had evidently made up his mind not to leave until he clinched the matter by getting the agency for the Thomas motor bicycle in his town.

Striking Originality in Catalogs.

Last year the Miami Cycle and Mfg. Co. of Middletown, Ohio, set a high mark in catalog originality by a clever and ingenious adaptation of a map of that State.

This year their standard of originality is raised even higher. The catalog cover represents a circular section of bamboo through a split in which a red-eyed dragon has forced its head. The bamboo opens and discloses the dragon's body and also several fetching Chinese sketches. The catalog is enclosed in this bamboo and is itself "set off" by similar sketches. The story of the Racycle is breezily told and the most is made of the famous crank hanger.

We want to know

why you, as a bicycle dealer, are not our agent in your city. Dealers in a great number of cities are selling our bicycles and making satisfied customers as well as money.

The line of

Yale Bicycles

is absolutely complete, comprising as it does, roadsters, racers, cushion frames, chainless, etc. Furthermore we take good care of our agents.

For the convenience of eastern dealers we have opened a Boston branch at 167 Oliver St. in charge of Mr. Edw. Buffum.

If you are not already acquainted with us, write and we will give you full information of our line and our agency arrangements.

The Kirk Mfg. Company,
TOLEDO, OHIO,

BOSTON BRANCH, 167 Oliver St., Edw. Buffum, Mgr.

HARTFORD TIRES

WITHIN THE REACH OF ALL.

the luxury of the best tire,

THE HARTFORD TIRE,

cannot be overestimated by those desiring *perfect* bicycle satisfaction.

It lasts twice as long, gives three times the ease of any other tire, and it can be depended on for hard service: in fact—

"IT IS AN HONEST TIRE!"

Under all conditions it has been maintained as such—and always will be.

The Hartford Rubber Works Co.
HARTFORD, CONN.

PENNELL'S OPINIONS

**Tell the Society of Arts What he Knows
and Thinks of Motor Bicycles.**

Motocycling from the standpoint of the rider—the man for whom the motorcycle is made—was the subject of the paper read by Joseph Pennell before the Society of Arts at London, England, on February 6.

The quondam American was not called on to display the aggressive tactics of which he is such a past master, as he has so often been obliged to do in the past, the most recent occasion being in regard to this same subject of motocycling. He addressed a friendly audience, and the discussion which followed the reading of his paper was conducted in a most amiable spirit. If any of the author's numerous critics were present they preserved complete silence.

HIS FIRST FAMOUS RIDE.

The paper, which was entitled "Some Experiences of Motor Bicycles," was lengthy, a considerable portion of it being devoted to a description of Pennell's famous ride from Paris to Switzerland, including the ascent of the Fulka Pass, and return to Paris, and thence to London, which has already been described in these columns.

This is asserted to be the longest motor bicycle ride ever undertaken, and Pennell dwells with a great deal of satisfaction on the fact that he has bracketed his record as a pioneer motocyclist with his former one as a pioneer cyclist, the latter title dating back wellnigh a quarter century, when he was a familiar, and not always welcome, figure on the Haddonfield (N. J.) turnpike.

The salient points of the address are here-with reproduced:

After alluding to his having listened to other papers read before the society, Pennell goes on to say:

"But, often as I have listened to these papers, I have always felt that they have been invariably contributed by the inventor, the manufacturer or the expert—never by the mere cyclist or motorist, the rider, the man for whom the machine was made.

RIDER MUST BE LISTENED TO.

"Now, in certain professions and crafts, and trades, too, the mere presence of the amateur, the client or the consumer is an impertinence, his criticism an unwarranted intrusion; it is so in my own, but in cycling or motoring the machine is made primarily for our use—not solely for the manufacturer's or inventor's profit or pleasure. And it seems to me high time that we, the users, even if not the engineers or scientists, had more voice in the matter. And it is from that point that I would approach the subject.

"I do not for one moment mean to suggest that the rider should dictate to the maker the sort of steel he should employ, how he should make the bearings, stay the frame or build the motor. These are technical matters only to be settled by technical experts,

but we know—those of us who have ridden for a quarter of a century—that often the expert is far from being a practical man.

"We know it by the endless faults in construction and fitting which prove that the maker never did what his customers wish to do—ride his machine five hundred miles straightaway. And if perhaps it breaks down, breakdowns are always—we have learned this—the result of our own carelessness and ignorance.

RAPS THE BRITISH WORKMAN.

"Still, after thirty years of continuous struggle, mostly misdirected, cycles have arrived, mainly through our misery, at that stage when, if bought from a good firm, they should not break down, though the chances are the British workman will put the cranks on wrong, screw up the bearings too tight, leave the head loose, and forget a lock nut or two, because—well, because he is the British workman.

"Now, the motor industry is in exactly the same condition that the cycle trade was thirty years ago—it is all experimental, all in the future. And though the manufacturer of cycles was hampered by the expert, the journalist, the racing man, the maker of motors is hampered by these and a legion more—the engineer, the electrician, the county councillor, the crank, the company promoter, the carriage builder, the question of cash, the question of caste and the question of speed.

"The beauty of the cycle is its simplicity—compactness, lightness, cheapness. The terror of the motor is its complication, bulk, weight, expense. After the worst smash we can put the bicycle on our shoulder and trudge off with the remains. We must take a skilled engineer along on a motor car to repair the slightest damage or guard the wreck while we hunt up a team to drag it away if anything serious happens.

THE IDEAL MOTOR BICYCLE.

"To fall off a bicycle is a fine art; to fall out of a motor car is ignominious unless fatal. But if one could have a motor bicycle that would be another thing, a machine as light as an ordinary safety, yet swift as the fastest train; a machine to take one up hills without work, and against the wind, with delight, and bring one to the end of a long day's ride refreshed.

"That would be the ideal motor, the one I am looking for, and sometimes think I have nearly found; but between perfection and the present state there is a great gulf fixed. Once you have learned the cycle—though few do really learn to ride it—all is easy, but the most expert are never sure of the simplest motor, and until the motor bicycle is far more simple than at present the safety will still drag on.

THE THREE TYPES.

"At the present time which marks the coming of the motor bicycle, makers—that is, those who have condescended to consider the subject—are divided as to whether they should build machines of which the motor is a part or build a motor to fit ordinary

bicycles. I think, roughly, the division might be as follows:

"Those specially built as motors,

"Those to which a motor may be attached,

"And those which will run and those which will not.

"I have no intention of giving a history of the invention of motor bicycles. I will only say that of Daimler, 1885, according to Mr. Beaumont, is generally called the first, though numerous steam bicycles and other self-propelled machines were spasmodically made at various times before. Probably there will be the same confusion as in the case of the safety, and certainly the Starley of motor cycles has not yet 'set the fashion to the world.'

PEDALLESS MACHINES ARE NOT CYCLES.

"The next is Wolf Müller's, 1895; then De Dion put his motor on a bicycle frame without pedals, and seemed overcome at what he had done and ceased to do so. Messrs. Shaw & Son and Messrs. Baines have taken up this idea. Messrs. Baines lay great stress on their friction gear, which may be, if it works, excellent.

"But the characteristic feature of these crankless pedalless machines is that sometimes the happy possessor does as much running alongside trying to start and then get on them as riding. One man has assured me that he ran halfway to Brighton, failed to mount, and then took the train the rest of the distance.

"Briefly, no motor bicycle not fitted with cranks and pedals is worth anything as a touring vehicle. They are not motor bicycles, but one-track carriages. As for the other types, I wish to show them on the screen, and ask those who have ridden them for their experiences.

"The Werner is built like the common safety, though somewhat longer in the wheel base, with a greatly strengthened frame. But it has an iron bracket over the front wheel, to which is bolted firmly a little engine of the well-known De Dion type, nominally 1¼ horsepower, but I wish it and all others could be tested. This engine is driven by oil—petrol—and electricity.

LONG BELTS DANGEROUS.

"But the Werner, unlike almost all forms of motorcycles, has its engine in front, and almost alone drives the front wheel by means of a belt carrying the power from a small external pulley wheel to a rim, riveted to the rim of the front wheel. Belts are almost universally used instead of chains, though some of the very long belts must be most dangerous. It would be interesting also to ascertain whether chain or belt is better for transmitting power.

"It took not ten miles of riding to discover the advantage of front driving, and also the one great disadvantage. I had ridden by quadricycle and other people's tricycles over some of the best roads in England. But I returned from every one of those rides almost in a state of nervous collapse.

BICYCLE VS. QUAD.

"The explanation is simple. Both the bicycle and my quadricycle were fitted with tires of exactly the same size, about 2½ inches. The saddle on the quadricycle was far more comfortable, larger and easier than that on the bicycle. The quadricycle, one might think, should then have been the easier riding machine. So it would, had it not been fitted with a motor.

"But on almost all forms of motorcycles save the Werner, the Ducommon and the Century Tandem, the engine is either underneath or behind the driver. The consequence is that to the vibration of the road is added the shock of the piston or the explosion when the engine is working. Those of us who rode the old form of ordinary bicycle, fitted with a solid tire, knew and felt the bad effects caused by the jolting of the little wheel on a rough road, which was communicated to the spine through the long backbone.

AS TO VIBRATION.

"But this vibration was nothing to the incessant thumping of a 2¾ horsepower engine, really hung onto the end of one's spinal column. The late Sir Benjamin Ward Richardson first pointed out the dangers of vibration on an ordinary bicycle. On a motor tricycle they are a thousand times increased.

"But on my first day's ride on the Werner, after all the hammering over the paving at a rate which no ordinary bicycle would have

stood, and after some very rapid riding for a few miles, I felt no inconvenience.

"Again, from the mechanical point of view, I never heard of any one who put a horse behind the cart or a locomotive engine at the back of the train, and yet this has been done by the makers of almost all motors. By placing the motor over the front wheel the vibration is not communicated directly to the driver. The only place where it is felt is in the fingers, when the machine is going at a high rate of speed and the handles are tightly held. But this is nothing in comparison with the fact that the bicycle is pulled by the motor and not shoved by it.

"The great disadvantage is the tendency to sideslip on grease because of the direct drive. There is no smell, at least the rider does not notice it, if the motor is running properly, while—greatest advantage of all—the entire motor and its mechanism are in sight, and all taps and switches may be worked without taking one's hands off the handles.

"I am so satisfied with the motor, after a couple of months' trial, that I should never think of returning to the ordinary bicycle for touring, even in England, where one has to arrange one's trip to suit the dealers in petrol.

PENNELL EXCEPTS AMERICAN MACHINES.

"I do not mean, and I do not wish it to be understood, that I think the Werner or any other motor bicycle on the market is perfect. On the contrary, I think the Werner as

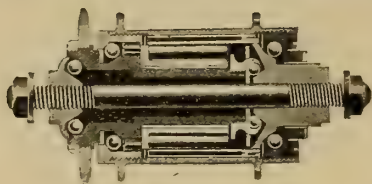
nearly resembles the motor bicycle which we shall have in a few years as the boneshaker of 1870 resembles the safety of to-day. But, on the other hand, I can honestly say that, so far as I know or can find out, it is the **only practical machine** yet put on the market in Europe.

"But to settle this, and prove what can be done with the motor bicycle under favorable conditions, I propose to suggest to the A. C. that a special class be devoted to them in this year's 1,000-mile trial; or, better still, that this society should arrange tests."

In the discussion which followed, nothing of very great interest was brought out. Mr. A. A. Campbell Swinton said that from his own experience the most serious matter connected with motorcycles was the question of sideslip. No doubt they were all very much inclined to that defect, and he had experienced a bad one.

He did not agree with Mr. Beaumont that it was wise in a motor bicycle to keep the weight low. The principle being that of an inverted pendulum, he should have imagined that the weight should be kept high so as to get a slow period, and consequently allow sufficient time for recovering equilibrium, and also in order to avoid sideslip.

On the other hand, he did not think the proper arrangement was that of the Werner bicycle, because he did not think it was the best plan to drive the front wheel. The front wheel should not have any weight upon it.



(Sectional view.)

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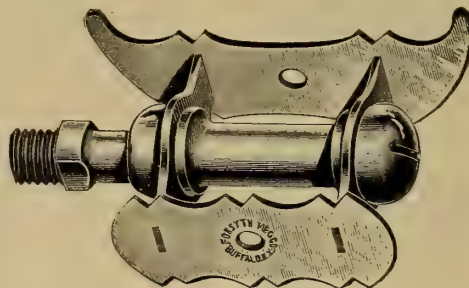
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That's the very question
you should ask, and
which we will be
pleased to answer.

Our answer has interested
others. We believe it
will interest you.

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Cycle Trades Protective Association.

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High Grade Tires?

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Write for prices before
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BOSTON CYCLE AND SUNDRY CO.,

J. M. Linscott, Manager,

7 HANOVER ST.,

BOSTON, MASS.

The Retail Record.

NEW STORES.

Ontario, Cal.—W. B. Beck.
Circleville, O.—Charles Titus.
Ivoryton, Conn.—George B. French.
Windsor Locks, Conn.—F. L. Harvey.
Watertown, S. D.—J. H. Troeh & Sons.
Astoria, Ore.—Schwartz & Canfield, Main street.
Holden, Mass.—F. F. Taylor is building a repair shop.
East Hartford, Conn.—David Roberts, Main street.
Wareham, Mass.—W. G. W. Woodruff will open a repair shop.
Los Angeles, Cal.—Richard Zeigler, 644 South Spring street, repairing.

FIRES.

Canton, O.—J. B. Smith.
Shickshinny, Pa.—H. L. Hobbes.
Eldred, Pa.—The Eldred Cycle and Supply Co.
Quincy, Mass.—James Dunn & Co., loss \$900, insurance \$500.
Buffalo, N. Y.—James McCraws, 224 Broadway, damage slight.
Bayonne, N. J.—George Livingstone, West Eighth street, partly insured.

CHANGES.

Mobile, Ala.—T. T. Wentworth, sold out.
Oskaloosa, Ia.—Fred. Slatten & Co. have purchased cycle department of Myer & Stevens.
La Crosse, Wis.—M. Sendelbach has closed his business at Arcadia and removed to La Crosse.
Woodland, Cal.—Breen & Norton succeed Frank De Maneze.
Arlington, Mass.—James Underwood succeeds the Mosely Cycle Agency.
Gloversville, N. Y.—W. H. Loft removed to Elm street.
Lincoln, Neb.—The H. E. Sidles Cycle Co., E. F. Reave retires.
Montpelier, Vt.—J. E. Leland is adding a repair shop.
Keene, N. H.—C. W. Brooks & Co., Church street, have purchased Knowlton & Stone's stock of bicycles and sundries, and are adding a repair shop.
San Diego, Ca.—San Diego Cycle and Arms Co. and Nolan & Tibbals have consolidated and will continue under the former name.
Veederburg, Ind.—William Archey succeeds J. H. Fowler.
Jacksonville, Ill.—George Wolke succeeds George Wolke & Co.
Bethany, Mo.—E. H. Collins succeeds George L. Owens.
Vienna, Ill.—J. F. Harris succeeds F. M. Simpson.
Sterling, N. B.—M. Ehmen succeeds J. M. Hershey.
Clinton, Tenn.—Grone, Gamble & Co. succeed J. M. Gamble & Co.
Aurora, Neb.—J. W. Eaton succeeds Wales & Eaton.
Bloomfield, Neb.—W. B. Frymire succeeds Frymire & Son.

AN INNOVATION IN AUTOMOBILE SELLING.

ORIENT AUTOMOBILE CLUB.

The most rapid, economical and trustworthy Automobiles are now offered on the Easy-Payment Plan.

Doctors and business men generally are ready to adopt twentieth century vehicles; but thousands hesitate at the cash outlay necessary for ownership in the usual way.

Now the Orient people have gotten past the experimental stage—have proved and improved their motorcycles in the most satisfying manner during the past year—equipped their factory for large production, and have prepared a large supply to co-operate with the Wanamaker Store in this great popularizing movement, that will make ownership easy for all business men.

Here is the proposition:

No increase in price—just interest on the unpaid part at 4 per cent. per annum.

ORIENT MOTOR TRICYCLE—\$450.
\$50 cash, with business references, and \$50 a month for eight months.

ORIENT MOTOR QUADRICYCLE—\$600.
\$80 cash, and \$65 a month for eight months.

Machines are delivered as soon as first payment is made, if references are satisfactory.

Club will be open until April 1st.

Now a word as to the Orient Motor-cycles: They hold the often-contested automobile road record from Philadelphia to Atlantic City, and in winning it maintained an average speed of 28 miles an hour for almost two and a half hours.

Of that notable club-run from New York to Philadelphia last year, in which almost every manufacturer of automobiles was represented, one of the daily papers said of the Orient Tricycle: "The other machines were completely at its mercy, and it came in an hour ahead of any other."

The club can be joined at either the New York or Philadelphia stores of

JOHN WANAMAKER.

Removes an Objection to Tricycles.

In itself simple, the clutch which is being fitted to the new De Dion tricycles and quads completely removes one of the greatest objections to these machines.

By its means the engine can be thrown out and run until perfect explosions come and show that everything is working properly; then the engine is thrown in gear without stopping it, and the machine starts off without the rider having to reduce himself to a raglike limpness by pedalling the machine until everything is working right.

The need of such a device is strikingly shown in the nightly performance of the actress Anna Held. In one act of "Papa's Wife" she comes on the stage perched on the front seat of a glossy and glittering quad, the rear seat being occupied by a stalwart attendant, who does the operating of the machine. After circling around the stage a number of times the quad is brought to a stop, facing the audience, and Anna sings a song divided into a number of stanzas.

At the finish, and under cover of the applause, the task of getting under way again is essayed. The engine has been at a standstill so long that it is cold, and the only way to start is to pedal until the explosions again come regularly. With a quad containing two persons, and on such a circumscribed field of action, this is not easy, and those familiar with the circumstances watch the process with considerable interest.

Before the last few lines are sung one of the chorus—a man, of course—takes his position near the machine, and when the attendant on the rear seat starts to get under way he receives material assistance from the other man, who pushes with hearty goodwill. In this way the machine is started, and before it disappears behind the scenes the explosions are heard and the engine is doing all the propelling.

But when, as usually happens, the fair singer is encored, and the machine has to be brought to the front of the stage once more, the same performance has to be gone through with again. To the tumultuous clapping of hands the two men get the quad under way again, while Anna strives to conceal her look of anxiety and to appear unconcerned while she is waiting to hear the welcome sound of the explosions. When this does catch her ear there is an expression of relief apparent on her face, and, wreathed in a smile of contentment, she makes her exit.

All of this trouble would be obviated by the fitting of a clutch. Then the engine could be thrown out, the operator could start it just before the last verse was finished and be ready to get under way as soon as the applause started.

Motocyclists who start with tricycles having this or similar devices for throwing the engine out of gear will be spared some of the harrowing experiences which have befallen earlier devotees of the sport.

To get a three or four wheeler under way when the explosions become regular after a revolution or two of the pedals is no small task, and wise riders usually select a down

grade for this purpose. But if there is anything wrong with the motor, and it in consequence takes several times as much pedalling as it ought to get the engine to working properly, the rider has work cut out for him.

Causes of Iver Johnson Success.

Almost since time began the secret of success has been sought by man. There are those who contend that success has no secrets, that it is an open book; and, however right or wrong the assertion, the causes to which successful men attribute their success never lack interest.

In the cycle trade the name Iver Johnson stands for success—for success that has never varied and is never doubted. It follows that the reasons for it advanced by the Iver Johnson people must command notice. These reasons are included in the company's 1901 catalogue, which has just seen the light. Hear the story in the Iver Johnson language:

"Since the year established, 1871, our policy, briefly stated, has been a conscientious endeavor to produce 'honest goods at honest prices,' with the result that Iver Johnson products, both firearms and bicycles, occupy a premier position in their respective fields.

"To what is this result due?

"Is it excellence of workmanship and material?

"Is it correct and conservative business methods?

"Is it earned capital and unexcelled facilities?

"Is it because of an unwavering determination to succeed in whatever is undertaken?

"Yes, it is due to each and all of the qualities named, which, individually and collectively, are absolutely necessary to successfully conduct a manufactory of our character.

"Year by year we have asserted, affirmed and reaffirmed an unswerving determination to produce only honest cycles at honest prices, and it is only when the field has been cleared of the debris of sand structures, shattered by the strong winds of competition, that the position of the 'Iver Johnson' stands forth conspicuously, by virtue of its stability and soundness of policy in adhering to those principles.

"It is with pardonable pride that we announce our determination to again adhere to the same elements, which in past years brought success with them and sustained our enviable reputation.

"Determination and energy, combined in the endeavor to eclipse all previous efforts in the art of cycle building, have evolved the crowning achievement of our seventeen years' identification with the cycle industry—the 1901 Iver Johnson."

Single Tube Tires.

Contracts for season's trade solicited at prices below Licenses. Protection guaranteed. Mineralized Rubber Co., 18 Cliff St., New York. ***

To Exploit a Sectional Tire.

In spite of their failure so far to produce the expected results, sectional tires continue to exercise a fascination over inventors who work in this field. The theoretical advantages of such tires appeal to them most strongly, and it is only when the practical difficulties are encountered that they see the fallacy of their reasoning.

Confidence in the merit and ultimate success of his invention still possesses Charles Miller, of Auburn, N. Y., who has patented a sectional tire and placed it in the hands of Willard L. Bundy, of the Bundy Mfg. Co., of Binghamton, for disposal. Efforts are being made to organize a company in Binghamton to exploit it, and sufficient support is said to have been secured to render it probable that work will be started shortly on the manufacture of the tire.

The great advantage of the sectional tire covered by Miller's patent, the latter says, consists in its great economy of manufacture. Over 50 per cent of the quantity of rubber required for an inner-cushion ordinary tire can be saved in the manufacture of this sectional tire for the same character of wheel.

In the construction of the wheel each section is placed upon the rim by clips, or light aluminum caps, which hold the outer rubber bulbs or rubber sections to the rim. The inner-tube section is pushed on one of the series of nipples located at intervals (one for each section) on a continuous tube that passes around the wheel and is connected with the air valve.

When the air is pumped into the valves the bulbs fill simultaneously, and as the air fills the inner bulb it presses tightly around the nipple; the more air pressure the tighter it grips the nipple. There is therefore no cement to loosen, as on the ordinary tire. The advantage of this is seen in that the wrenching and racking of the tire and cushions will not cause any leak at the nipple.

A thoughtful rider will have one or more of the inner cushions in his pocket, and in case of a puncture he has merely to loosen one screw, remove one outer bulb, take off the inner cushion and replace it with another, put on the outer rubber section and screw it down, blow up the tire, and his wheel is complete for riding. The whole operation can be accomplished without possible mishap in less than a minute.

On the ordinary bicycle tire if it should become cut so as to be impracticable to mend, the whole tire becomes worthless, while with a sectional tire such a mishap would cost merely the price of one rubber section, a merely nominal price.

Want Motor Bicycles.

The H. W. Vandever Co., 809 Market street, Wilmington, Del., has been organized to take over the bicycle business of the Capelle Hardware Co., of which H. W. Vandever was manager. A jobbing and retail business will be done in bicycles, sundries and sporting goods. A good line of motor bicycles is also desired by the new concern.

BEGINNING ANEW

To get the Best Results Motocyclists
Should Study Their Machines.

There are plenty of people who can well remember the impression made on their minds many years ago by hearing the description of the methods adopted by bicycle manufacturers to secure interchangeability of parts.

There long existed a crying need for something of the sort, and it was never really quite filled until one or two of the pioneer American manufacturers had been enabled to perfect their processes. When this point was reached parts had become as near interchangeable as was required to make them workable, and dealers and riders were able to feel confident that a new part could be made to take the place of an old one without any fitting being required.

All this is an old story, and no one ever gives it a thought now, much less dwells upon the immensity of labor that was required to bring about the present state of affairs. Nowadays the bicycle seems to be the acme of simplicity, and its ball bearings, crank hanger construction, internally-fastened seat and handle-bar posts, system of wheel building, etc., are regarded as quite a matter of course. These parts are nearly all hidden, they do their work unostentatiously and perfectly, and few riders bother their heads about what "makes the wheels go 'round.'"

With the appearance on the scene of motorcycles, however, there promises to be a change in this attitude. Everything about the motor will be new, and even if riders were too indifferent to study its workings they would very often be obliged to do so for their own protection. When things go wrong some knowledge of how to put them to rights is almost indispensable. So emphatically is this true that the service a motocyclist gets out of his machine is bound to be in direct proportion to the amount of practical knowledge of it which he possesses.

In addition to more serious matters, there are dozens of little things which can go wrong—and will if they are not looked after and kept in order—and retard speed or stop the machine altogether. Looked after carefully—at a very slight expenditure of time—they will work satisfactorily; but neglected they will be continually turning up to plague the improvident rider and make him wish he had taken the "stitch in time."

A good illustration of this is afforded by the experience had last year with motor tandems used for pacing purposes on race tracks. At the beginning of the season they all worked splendidly, seldom giving trouble of any kind and frequently going through long races without changing machines. Time and again the spare machine was never called on for service, and so well-known was this that it was at times difficult to force competitors to provide themselves with

an extra machine; they preferring to save a little money, notwithstanding the risk.

When the season had become more advanced, however, a changed condition of affairs was noticed. Troubles became more frequent, and changes of machines sometimes had to be made every few miles. Usually at such times a little patching up would put the offending machine to rights, and it would then be brought out again, only to once more fail at some critical point.

Almost invariably such failure was the result of carelessness or neglect on the part of the users. Poor gasoline was used or the residue was not thrown away; the batteries permitted to run down, or the wires to become broken or twisted or short circuiting to follow; the valves became clogged or worn, something was out about the contact breaker, the motor was allowed to overheat itself, or some other of the many acts of omission or commission indulged in.

Just the opposite results were obtained with tandems that received the proper care. A few minutes given to them every day was sufficient to keep them in perfect order, and they never gave the slightest trouble.

Owners of motorcycles used on the road have exactly the same story to tell. Ordinarily they give little trouble. In the hands of one who knows how to handle them intelligently they are almost as reliable as the ordinary bicycle of to-day. But they won't stand neglect and abuse as the later will, and, therefore, for some years at least, they will require to be treated with some consideration.

Consequently, the sooner riders become familiar with their construction the better satisfaction they will obtain from their use.

Effects of Brass Lining.

"In the month of January, 1900, we got a set of brass-lined tubes made on the Wilmot & Hobbs method," says the Irish Cyclist. "About the same time we received an English-made tube of the ordinary class. They were both laid away, open to the prevailing influences of climate, and merely glanced at from time to time to notice any changes.

"Now, the brass-lined tubes are as bright almost as when new, and along their interiors not a speck of rust is visible. The English tube, on the other hand, is simply ruined with rust, and is fit only for the scrap-heap. A thick coating has covered it both inside and outside; it gives a dull sound, and seems in so rotten a state that no sane person would think of employing it for any useful purpose, while to all intents and purposes the American tube seems as fit as the day we got it.

"The matter seems small to many people, and almost without exception the English makers profess to see nothing in it. But we hold that such a method of preserving tubes from internal and external rust deserves consideration, as it plays an important part in securing the durability of the cycle."

Single Tube Tires.

Contracts for season's trade solicited at prices below Licenses. Protection guaranteed. Mineralized Rubber Co., 18 Cliff St., New York. ***

BE GOOD AMERICANS!



When you see that saddle or anything like it, term them properly: They are either Persons saddles or saddles of the Persons type. We might say "or imitations of the Persons saddles," and be telling the veriest truth, but—well, let that pass, for the present, at any rate.

The point we wish to make is simply this: There are people and papers in the trade who persist in terming that pattern of saddle the "English type," or the "Rook's type," or some other equally foreign designation, any and all of which are wide of the mark.

But one designation truthfully describes them, i. e.,

"THE PERSONS TYPE."

Be good Americans, therefore, and use the proper label, as it were. Don't go abroad for one.

Mr. Persons has been for nine years engaged in perfecting the saddle. He has refused to follow will-o'-the-wisps. He has remained true to his type and his convictions, and this year finds the

PENDULUM OF POPULARITY

swinging so unmistakably toward the Persons saddle and the Persons type of saddle that even the blind can feel it.

And as the sun grows warmer and the days longer, the demand for the genuine Persons grows stronger and stronger and still stronger. It suggests that none should put off until to-morrow the order that should be sent to-day.

The Persons Mfg. Co., Worcester, Mass.

N. B.—About those imitations: We know that "comparisons are odious"—from certain points of view—but we urge comparisons of the genuine Persons and the other kind. It will add to the wisdom of all who make the comparisons.

The Week's Exports.

England, France and Denmark were last week again conspicuous in the purchase of American cycle stuff; the British East Indies also came up strongly. The record in detail, the week ending February 19, follows:

Antwerp—1 case bicycles, \$25.
 Amsterdam—2 cases bicycles, \$52.
 Argentine Republic—3 cases bicycles, \$159.
 Brussels—10 cases bicycle material, \$541.
 Bolivia—1 case bicycles, \$75.
 British Australia—11 cases bicycles and material, \$281.
 British Guiana—18 cases bicycles and material, \$416.
 British East Indies—69 cases bicycles and parts, \$3,425.
 Bremen—7 cases bicycle material, \$275.
 Brazil—3 cases bicycles, \$92; 1 case bicycle material, \$96.
 British West Indies—10 cases bicycle material, \$112.
 Central America—4 cases bicycles and material, \$108.
 Copenhagen—11 cases bicycles, \$235; 55 cases bicycle material, \$2,785.
 Chili—1 case bicycles, \$31.
 Cuba—1 case bicycle material, \$21.
 Christiania—9 cases bicycles, \$167.
 Danish West Indies—1 case bicycles, \$25.
 Dutch West Indies—2 cases bicycles, \$32.
 Ecuador—1 case bicycles, \$15.
 Dundee—1 case bicycles, \$50.
 Glasgow—2 cases bicycles, \$65.
 Ghent—8 cases bicycles, \$200.
 Hayti—1 case bicycles, \$27.
 Havre—147 cases bicycles, \$2,678; 8 cases bicycle material, \$960.
 London—182 cases bicycles, \$4,603; 115 cases bicycle material, \$4,053.
 Liverpool—1 case bicycle material, \$142.
 Mexico—1 case bicycles and parts, \$30.
 Newcastle, Eng.—1 case bicycle material, \$400.
 Rotterdam—42 cases bicycles and material, \$1,128.
 Southampton—9 cases bicycles, \$325.
 Trieste—1 case bicycles, \$26.

Irish Opinion of Motor Bicycles.

Judged by their cycling publications, there must be a mighty difference between the air of Ireland and of England. While the papers of the latter country are, generally speaking, hidebound and shortsighted to a degree, the Irish Cyclist is liberal, broad-minded and ready to see and admit merit in men and things outside the confines of Great Britain.

The motor bicycle supplies the most recent instance of the sort. The English bicycle papers give it but a minimum of attention and damn it with faint praise; they seem willing, if not anxious, that the motorcycle should be included in the automobile industry. The Irish Cyclist, on the other hand, sees that it is but a logical development of the present-day bicycles, and treats it with a fairness that is refreshing.

"Last week end," says that paper, "we spent on a motor bicycle, and the result has more than ever confirmed us in the opinion that there is a big future for this class of machine, and that for the expert bicyclist it possesses many advantages over the tricycle. There are a smoothness of running and an absence of vibration in the bicycle which are very delightful. Whether at low speed or high speed, this smoothness is apparent. Then, again, there is none of that pitching from side to side motion which is so unpleasant in the tricycle on rough roads. The management is simple, and the steering is perfect. In grease one has to be careful not to travel fast, just as in the case of an ordinary bicycle. Finally, the motor bicycle possesses this great advantage over the tricycle—in case of a bad short circuit or other trouble which may entail a lengthy delay it is a simple matter to slip the driving band off and pedal home, whereas to pedal a three-wheeler under such circumstances any distance would require a Hercules. We would strongly advise Irish agents to turn their attention toward the bicycle."

The Week's Patents.

668,168. Bicycle Brush. Pemberton Dudley, Philadelphia, Pa. Filed Feb. 23, 1900. Serial No. 6,276. (No model.)

668,214. Saddle Post and Pump for Bicycles. Julius H. Rast, Charleston, S. C. Filed Aug. 2, 1899. Serial No. 725,913. (No model.)

668,259. Bicycle Stand. Albert Krimmert, Brooklyn, N. Y. Filed Nov. 16, 1900. Serial No. 36,662. (No model.)

668,292. Vehicle Tire. Francis J. Johnston, Sacramento, Cal. Filed Dec. 4, 1900. Serial No. 38,652. (No model.)

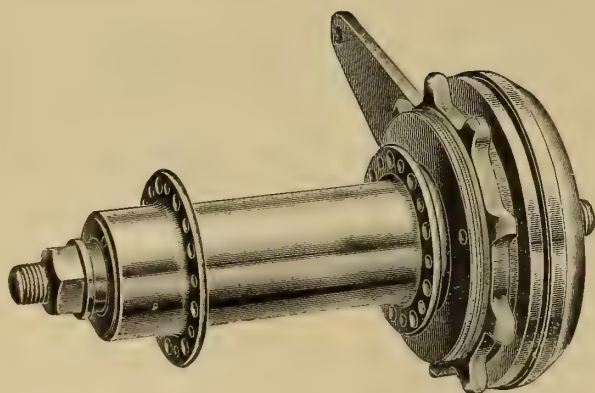
668,412. Bicycle Support. James Newbigging, James Easton and James Bell, Victoria, Canada. Filed Sept. 22, 1900. Serial No. 30,751. (No model.)

668,546. Bicycle Frame Member (rear fork). James H. Sutherland, Cairo, Egypt, assignor to James Harvie Sutherland, same place, and Thomas Charles Brickman, London, Eng. Filed Sept. 7, 1900. Serial No. 29,283. (No model.)

Tardy Justice.

During the exceedingly dull times from 1892 to 1896, says a writer who thinks the bicycle has not had justice done it, there was no industry that gave employment to such an army of first-class mechanics and toolmakers as did the bicycle business. It possibly reached its zenith in 1895, at which time the prices for high-grade bicycles began to decline very rapidly, until now, instead of \$150 being the price of a high-grade bicycle, one-third of that buys the best there is on the market, and one-half of the latter amount buys a mount that the majority of cyclists are using.

The manufacturers of bicycles went through a long siege of experimental work, the most costly of any industry in the history of our country, and by constant and untiring efforts brought the bicycle to its present high standard at a medium cost.



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This is to certify that we have taken a license from the original inventor and patentee, Edward E. Ziegler, of Philadelphia, to manufacture the Coaster Brake shown herewith. We are the only ones authorized to make and sell this Coaster Brake in the United States, and all other parties making and offering such an article for sale are infringing our rights.

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WILL DO THE REST.

Get your **CUSHION FRAME**
ORDERS in **EARLY**
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is the Juvenile he wants.
No need to explain its fine
construction and finish—
he can see that at a glance.

2 minutes time suffice
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with the Reversible Crank
Bracket—such a Wheel
will fit his growing child
longer and last him long-
er than any other.

2 minutes will serve to
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child to adjust and no
chance for the child to
injure the wheel when
out of adjustment.

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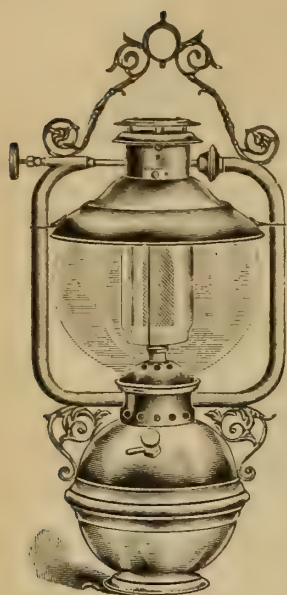
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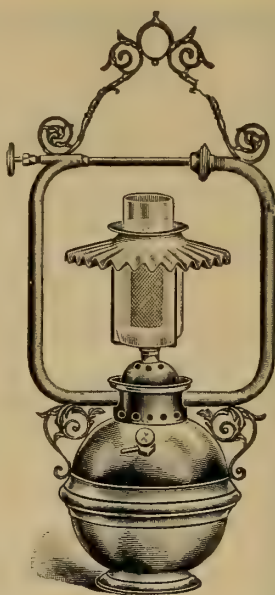
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WANTED.—Cyclometers, lamps, bells, tool bags, foot pumps, trouser guards and other sundries and equipment. Large lots preferred. Spot cash. MEAD CYCLE CO., Chicago.



THE NEW "AUTO" BICYCLE PUMP.

Patented Oct. 9th, 1900. The barrel is 15 inches long and 1 inch in diameter. Will inflate the heaviest automobile tire. Provided with our patented air tight swivel. Has solid base and will stand alone. The finest and strongest pump made. Sample sent on approval. Electrotypes for catalogues furnished free. Handled by all jobbers. Mention this paper.

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The Monon Route and C. H. & D. R'y run four trains daily from Chicago to Cincinnati. The day trains leave Dearborn Station, Chicago, at 8:30 A. M. and 11:45 A. M., and are equipped with elegant Parlor and Dining cars. The Night trains leave at 8:30 P. M. and 2:45 A. M. These trains are equipped with elegant sleepers and compartment cars, the sleepers on the latter train being ready for occupancy at 9:30 P. M. City Ticket Office, 232 S. Clark St., Chicago. ***

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MADE OF BRASS.

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Use it
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About the Trade's Future.

We hear and read a great deal from week to week about the future of the cycle trade, says an English writer. Almost every day some of the daily papers deal more or less directly with the subject, sometimes taking one view and sometimes another, according to the whim of the enterprising penny-a-liner who supplies the "copy."

Occasionally the editorial staff—gravelled for lack of matter, and nervous about inventing another hair-raising massacre until a reasonable interval has followed that little affair of the Chinese legations—hold forth on cycling topics with much show of profundity. But the chief characteristic of the ordinary press in regard to points of interest to any section of the cycling community is an elaborate and almost preternatural ignorance. Only a few days ago, for instance, a leading paper accounted, to its own entire satisfaction, for the depression in the cycle trade by dwelling on the popularity of golf and the development of automobilism.

Fancy any one supposing for a moment that the few motor cars we have in these islands could possibly have any appreciable effect on cycling! So far as golf is concerned, I venture to think that there are comparatively few players who do not cycle more or less. In my own circle of acquaintances there are enthusiastic golfers who use their cycles to carry them to and from the links, and I am quite sure that this very sensible plan is pretty generally followed. This "opinion" is a fair sample of the nonsense that is written on the subject.

Some writers, again, seem to suppose that because cycling is no longer the silly craze of people of fashion and leisure, who simply don't know what to do with themselves, the anæmic condition of the trade is the most natural thing in the world, and was inevitable when "society" grew tired of its toy!

Of course, this, too, is undiluted nonsense. It had been better for the cycle trade that "society" had left cycling alone. When cycling became the fad of the moment the company promoter at once fixed his eagle eye on the industry, which was soon wriggling in his talons, with the result with which we are all unhappily familiar.

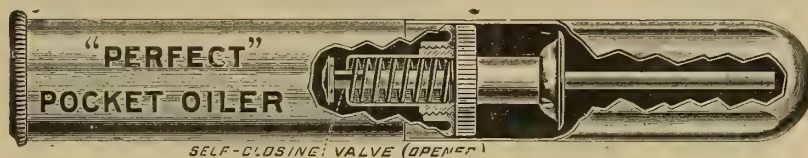
But we know, as a matter of fact, that

there are more cycles in use to-day than at any previous period of the world's history. We don't need a transcendent genius nor a representative of the prophet trade to tell us this. Every man knows it for himself who adopts the simple expedient of keeping his eyes open, and refrains from the inconvenient and inadvisable course of burying his head in the sand. He has but to note the state of things in his own neighborhood; and what he finds in his own district he will find in yours and mine.

Practically every middle-class house has its cycle, and families owning half a dozen

machines are to be met with as often as people with perambulators. The working man cycling to and from his work is a common, if not always picturesque, sight on the roads in the neighborhood of our large cities and towns. The cycle is to these people as much a matter of course as is meat, or coals, or trousers, or milk, or boots, or any of the thousand and one things that are almost universally regarded as necessities.

And the cycle has come to stay. It has solved the problem of cheap locomotion, and it has made people of narrow means absolutely independent of railway monopolists, "twopenny tubes," omnibus companies, etc.

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COASTER AND BRAKE.**Over 100,000 Sold**
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Desirable by Fitting it with
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You are Interested
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Send business cards or letter heads of three bicycle dealers or repairers who have not received our 1901 Catalogue and we will mail you one of these Bicycle Wall Holders. Folds up against the wall when not in use. Five names, two holders. Ten names, five holders. Include 2c. postage stamp for each holder.

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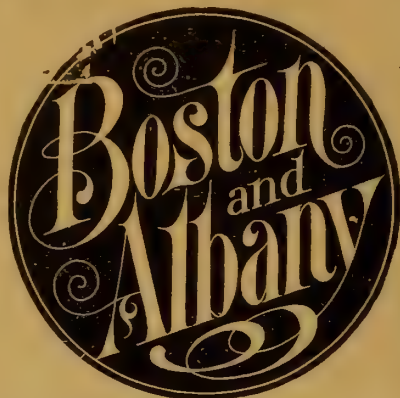
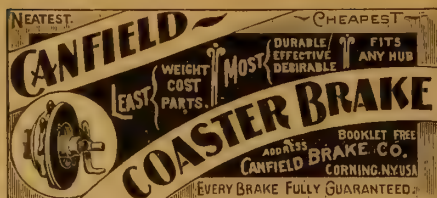
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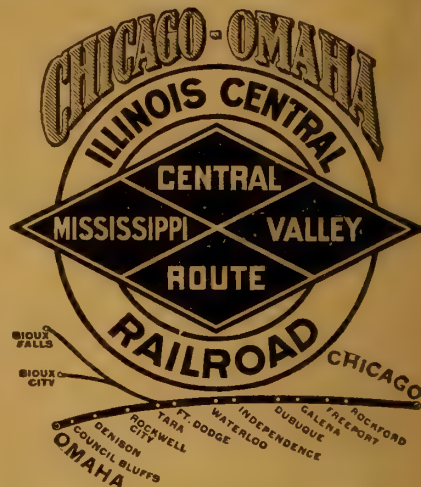
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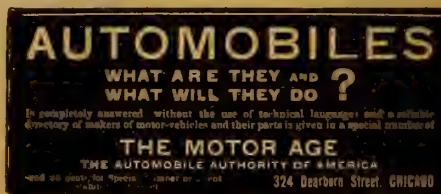
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1877

and **MOTORCYCLE REVIEW**

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Vol. XLII.
No. 23.

New York, N. Y., U. S. A., Thursday, March 7, 1901.

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A Word as to Cushion Frame Chain Wheels.

It is frequently said that "1901 will prove a Cushion Frame year."

That may or may not be true.

To The George N. Pierce Co. every year has been a Cushion Frame year since 1899, because it has intelligently built and diligently sold these wheels.

Utilizing the **repute** thus created, other makers of wheels are now in the market with this device.

The George N. Pierce Co. for 1901 offer these models to the trade backed by **four years of experience**. The quality is the best. The equipment is **unequaled**, including **Palmer Tires** and **Morse Chains**. Experiment is past on **PIERCE** Wheels. If you want all this at competitive prices order only **PIERCE**.

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Regular Cyclometer.
10,000 miles and repeat.
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10,000 miles and repeat.
Weight, 2 oz.

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BICYCLE DEALERS—Did you ever notice that when you read of motor bicycles in the trade papers that it is always and only the 'Thomas AUTO-BI' that is being delivered?

Did you also notice in the trade papers of last week that a party of twenty-four (24) riders are going to make a trip from Indianapolis to the Pan-American Exposition on motor bicycles, and that the motor bicycles to be used are the Thomas AUTO-BI? This means something. It means, among many other things to the bicycle dealer's advantage, that

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not promises. Our Indianapolis agents have already had machines shipped to them, and have placed orders for more.

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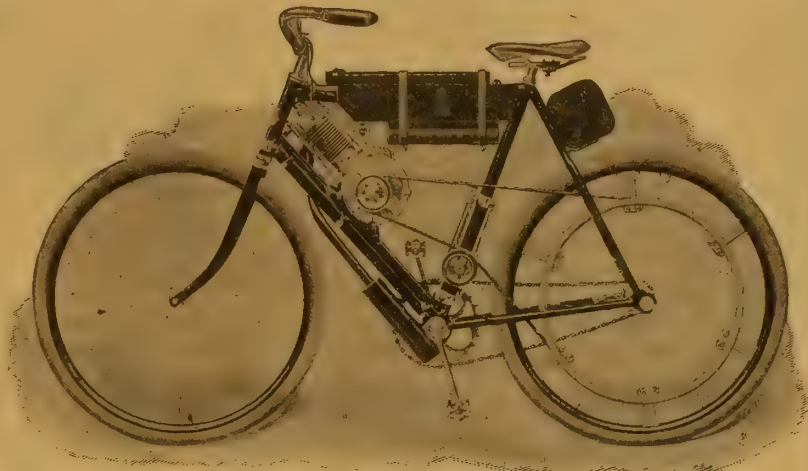
We are turning out twenty motor bicycles a day in an equipped factory; not one or two a week in some back shop.

AUTOMOBILES FOR EVERYBODY—THE AUTO-BI.

We will sell complete outfits to attach to bicycles. The list price is \$140. We give bicycle dealers and manufacturers a discount.

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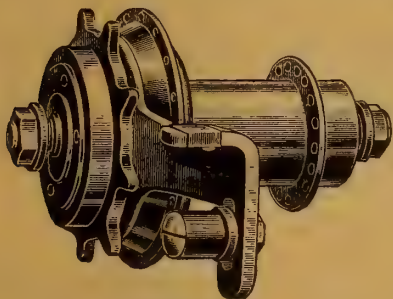


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- Fully guaranteed.
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Schrader Universal Valve.

(Trade Mark, registered April 30, 1895.)

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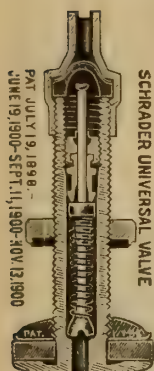
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99-2



99-3



99-4

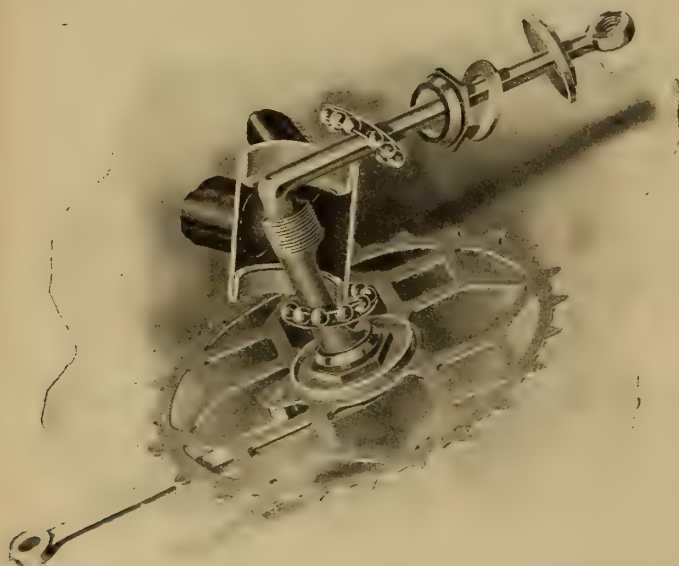
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ESTABLISHED 1844.

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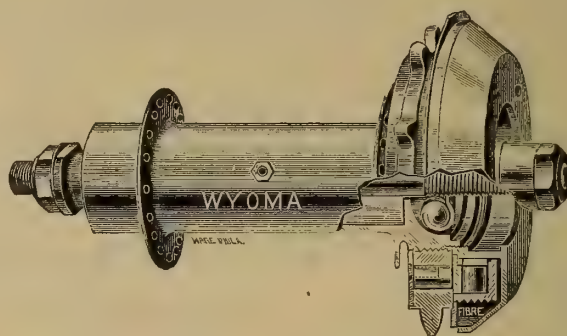
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Furnished with Rigid,
"Wishbone" or Car-
riage Bracket.

Bridgeport Brass Co.
19 Murray St., New York.



Bicycle SUNDRIES, PARTS, FITTINGS and SPECIALTIES.

1901

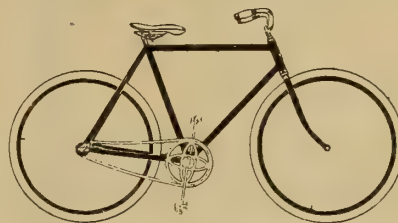
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are about ready for delivery. Send for copy, and advise us regarding your wants. We have everything to offer—Complete Stock, Latest Goods, Low Prices, Liberal Treatment.

C. B. Barker & Co., Ltd.,

93 Reade St., New York City.

VICTOR BICYCLES.



ROADSTER, \$35.00.

SPECIAL FEATURES:

Victor Hubs, with direct tangent spokes, take same fittings front and rear; **Victor three-piece Hanger**, hollow axle barrel; flush ball collars at head; ball retainers throughout; cones made with nut, easily adjusted.

Climax Coaster-Brake, hub friction type, admits of using regular hub—neat, light and effective.

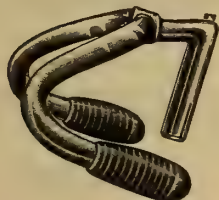
Send for catalog and proposition to dealers.

J. STEVENS ARMS AND TOOL CO.,

P. O. Box 2660, Chicopee Falls, Mass., U. S. A.

1901

Kelly Adjustable Handle Bars.

NO. 3 ARMS.
Regular Stem.NO. 4 ARMS.
2 1/2 in. Forward Extension Stem.NO. 5 ARMS
1 in. Forward Extension Stem.

"The Standard Bar
of the World."

Why do we succeed?

BECAUSE we do not try to force
EXPERIMENTS on our friends which
ARE DANGEROUS. We give them an article that has been made for Five Years and tested by over ONE MILLION RIDERS.

We never used a casting.
We could not afford to.

Furnished by
LEADING
MANUFACTURERS.

Sold by all First Class Jobbers and Dealers.

Send for catalogue.

THE KELLY HANDLE BAR CO., CLEVELAND, OHIO, U. S. A.

COLE'S FLEXIBLE AND ADJUSTABLE LEATHER TOE CLIP.

ATTACH ON INSIDE
OF PEDAL PLATE.

PREVENTS THE CLIP
FROM TURNING
ON THE PEDAL.

Have your toe clips bothered
you with striking the ground
or scratching the shoe?

Specially adapted to
Long Cranks and
Low Frames.



C. W COLE COMPANY,

MAKERS OF THE
FAMOUS*3 in One*141 BROADWAY,
NEW YORK.

SOLD BY ALL JOBBERS.

SEND FOR CATALOGUE No. 10.



NO PRESSURE ON
THE TOES.

The Flexible Leather
folds up (see dotted
lines).

WE WANT YOUR SPOKE

and Nipple business,
and are willing to compete for it.
Write us when ready for business, stating
quantity you want.



THE WORLD'S STANDARD

JUVENILE BICYCLES,

THE FAVORITE,

are so popular this year
that we have been obliged to largely increase
our output.

TOLEDO METAL WHEEL COMPANY,

TOLEDO, OHIO.

"The Gem of the Pacific."

HAWAIIAN ISLANDS.

This group belongs to our country and affords more variety to the tourist than any other section of the same extent covered by the Stars and Stripes. These wonderful Islands are best reached by the

NEW YORK CENTRAL LINES.

Any of our agents will give information regarding them, the time it takes to make the trip and what it will cost.

A copy of No. 5 of the "Four-Track Series," "America's Winter Resorts," will be sent free, postpaid, to any address, on receipt of a postage stamp, by George H. Daniels, General Passenger Agent, New York Central & Hudson River Railroad, Grand Central Station, New York.

WHOLESALE BICYCLE SUPPLIES

WE MAKE
LOW PRICES
LARGE STOCK
PROMPT SHIPMENTS
FEATURES OF
OUR BUSINESS

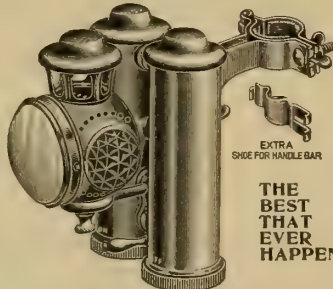
52 PAGE CATALOGUE TO ANY
DEALER WILL BE SENT FREE
UPON RECEIPT OF APPLICATION

THE POST & LESTER CO.
HARTFORD, CONN.

E. A. Sherman Hfd.

WHERE'S — THE ONE THAT'S
JUST AS GOOD ?
Echo answers WHERE ?

The same old Duplex,
Different as Ever . .



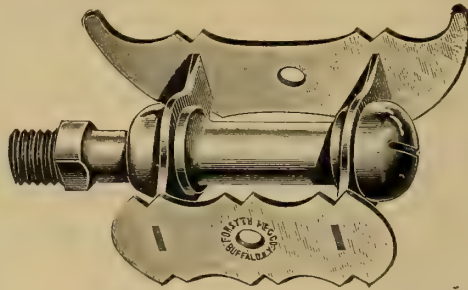
THE
BEST
THAT
EVER
HAPPENED !

All other styles have been more or less alike in construction, and are much the same in operation —so, stop costly experimenting and stock up with the old reliable DUPLEX—that's different.

THE MATTHEWS & WILLARD MFG. CO., WATERBURY, CONN.

Send for agency proposition.

FORESIGHT SHOULD DICTATE FORSYTHS.
WHY?



ONE OF THE FORSYTHS.

FORSYTH MFG. CO.,

BUFFALO, N. Y.

That's the very question you should ask, and which we will be pleased to answer. Our answer has interested others. We believe it will interest you.

The acme of mechanical skill and ingenuity has been attained in the

KEATING MOTOR BICYCLE

**We have
the Perfect Motor**

It is not tied, strapped, screwed or attached to a bicycle frame.

**IT IS A PART—
THE LIVING PART
OF OUR BICYCLE**

We will tell you about its life next week.

BICYCLE AGENTS

We want you to know our business. It will pay you to do so.

Keating Bicycles

give satisfaction to the rider and a profit to the agent.

Do you know our prices? Remember our special and distinctive features—and the **Keating Reputation**. "365 days ahead of them all."

May we hear from YOU?

**KEATING WHEEL AND
AUTOMOBILE COMPANY,
MIDDLETOWN, CONN.**

A Wise Man

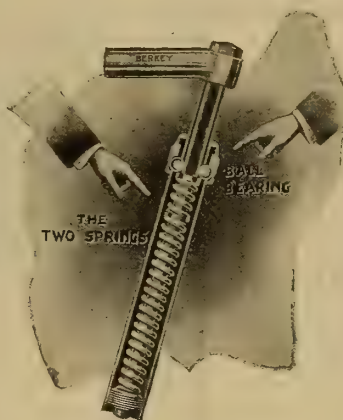
is he who keeps his stock up-to-date. For his customers stay with him and he ends the season with balance on the right side of the ledger.

THE BERKEY BALL BEARING SPRING POST

will please your customers.

**BALL BEARING
CONE ADJUSTING
LIKE THE BICYCLE.**

For ease and comfort in Bicycling it has no equal.



A perfect vibration absorber, making Rough Roads and Pavements seem as macadam.

**Fits Any Bicycle
New or Old.**

Send for Sample.

**BERKEY SPRING
SEAT POST COMPANY,**

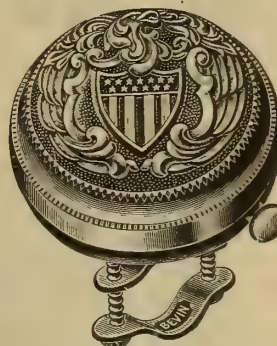
Grand Rapids, Mich.

Booklet Free.

**You
Hear
Them
Everywhere.**

They've "caught" the trade;
they've "caught" the public.

IT'S A BEVIN YEAR.



The reason is not far to seek. We are ready to impart it to all who may inquire, and no one in the trade can well afford not to inquire.

Bevin Bros. Mfg. Co.,

East Hampton, Conn.

(Business founded 1832.)

The Demorest and The Dealer or The Dealer and The Demorest.

Whichever way you put it,
The One Must Interest the Other.

The Demorest line of Bicycles, like the Demorest Sewing Machine, is complete, comprehensive and beyond reproach. It is not swayed by fizz or fireworks, by poetry or emotion. Its standard is fixed for all time.

There may be dealers whom we cannot interest, but we can scarce believe it. We are ready to submit our facts and figures; are YOU ready to receive them?

Demorest Mfg. Co.,

Williamsport, Pa.

PROPER MECHANICAL PRINCIPLES,

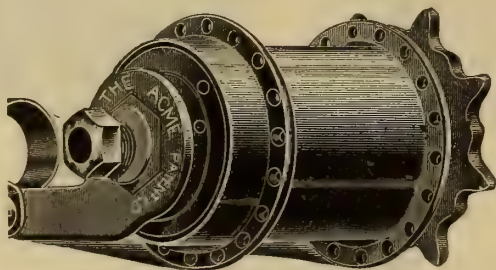
TOGETHER WITH

FINE WORKMANSHIP AND SIMPLICITY,

MAKE

THE ACME COASTER BRAKE.

The Simplest, Strongest, Most Durable and Effective
Coaster Brake ever produced.



Brown & Wales, Boston,
DISTRIBUTORS.

The Post & Lester Co., Hartford,
DISTRIBUTORS.

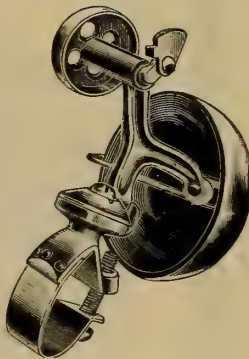
SEND FOR BOOKLET.

ACME COASTER BRAKE COMPANY, ROCHESTER, N. Y.

New York Office, 99 Chambers Street. Frank F. Weston, Manager.

WHOLESALEERS!

ALLEN TIRE BELL



Samples and prices will be sent you
for the asking.

WE ASK YOU
TO ASK.

THE GEO. SWEET MFG. CO.,

DANSVILLE, N. Y.

PRICE TALKS

It always did.
It always will.

That is only

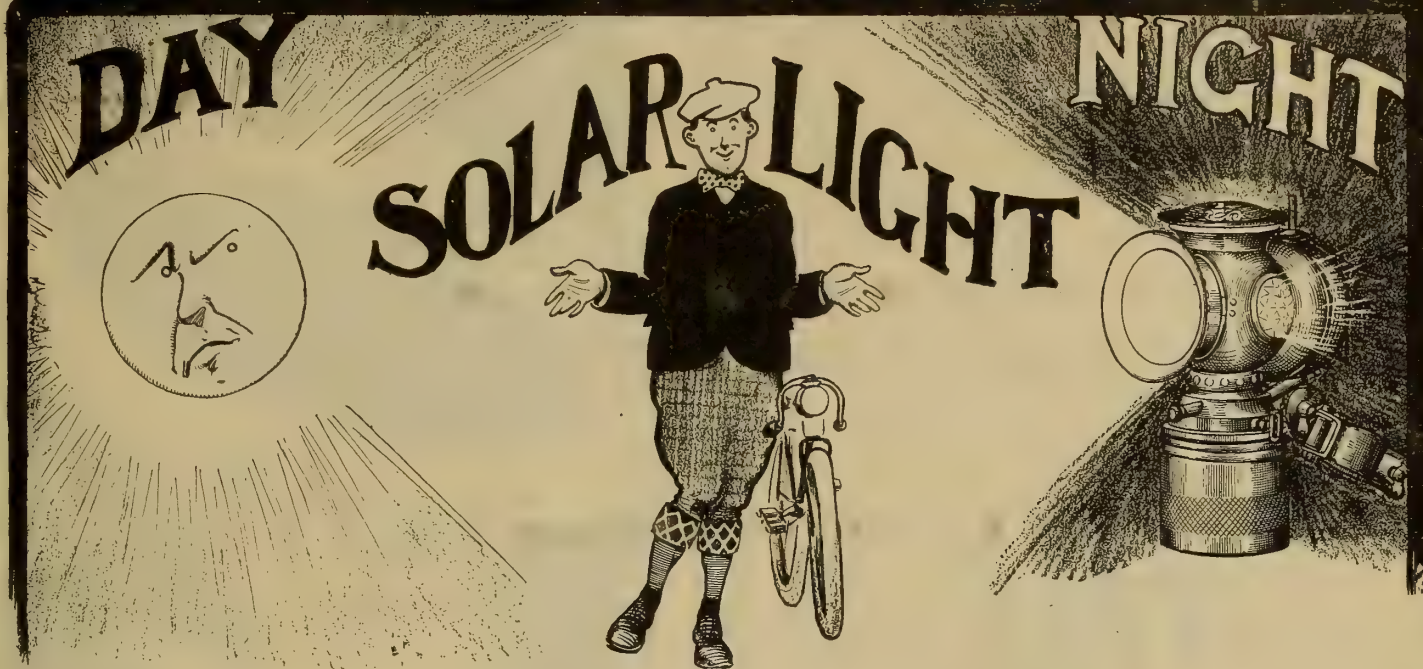
ONE REASON WHY

you should write us regarding our

UWANTA TIRES

and our unguaranteed tires as well.
The sooner you write, the better for you.

WILLIS PARK ROW CYCLE CO.
23 PARK ROW, NEW YORK. O.



They were the first successful bicycle lamps made.
 They were the first gas bicycle lamps advertised.
 They were the first gas bicycle lamps sold by the dealers.
 They ARE the FIRST lamps in the riders' esteem.

There are reasons for this — first because we manufacture them ourselves in a factory built expressly for this purpose, and they are not made by the "lowest bidder;" second — because we use a patented system of generation which no other lamp makers can use; third — because we guarantee them fully and are liberal with this guarantee; fourth — because we advertise them generally and help the dealers create a demand.

You as a dealer cannot afford to overlook the above facts. You know as soon as the season opens that your customers will begin to ask for the 1901 Solar. "THE BEST LAMP WE EVER BUILT."

You also know that unless you order NOW and get your stock in, you will miss some sales, for at the season's opening, the jobbers can't fill all orders at once.

BE WISE and if you haven't ordered your stock of Solars, DO SO TO-DAY.

If you are not acquainted with our plan to give Automobiles and other valuable prizes to dealers who handle Solars, write us at once for full particulars.

THE BADGER BRASS MFG. COMPANY, KENOSHA, WIS.

We want an opportunity to reason with you for we know if you know what we know about our line of bicycles, you would be another one of those loyal supporters of

YALE BICYCLES

They are right all through and we want you to know this.

If you have not seen samples of our 1901 models, write us and we will arrange to acquaint you with their extreme merits.

.....

THE KIRK MFG. CO.,
TOLEDO, OHIO.

BOSTON BRANCH: 167 Oliver Street.
Edw. Buffum, Manager.

HARTFORD TIRES

WITHIN THE REACH OF ALL.

the luxury of the best tire,

THE HARTFORD TIRE,

cannot be overestimated by those desiring perfect bicycle satisfaction.

It lasts twice as long, gives three times the ease of any other tire, and it can be depended on for hard service: in fact—

"IT IS AN HONEST TIRE!"

Under all conditions it has been maintained as such—and always will be.

The Hartford Rubber Works Co.
HARTFORD, CONN.

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., March 7, 1901.

No. 23

TRANSFER ATTACKED

Minority Stockholders Charge that Sale of Tillinghast Patent was Illegal.

Back of the brief court notice "Booth et al. vs. Dodge, trustee, and Brown; demurrer sustained," which recently appeared as a record of the New York Supreme Court, it develops that there is much of no little interest and concern to the cycle trade.

The action, which was brought in August last, but of which little has been generally known or heard, is nothing less than an effort to upset the transfer of the Tillinghast single-tube fire patent to the Single Tube Automobile and Bicycle Tire Co.

H. P. Booth, the complainant, is acting for himself and other minority stockholders in the Tillinghast Tire Association. The defendants are the well-known Theodore A. Dodge, as trustee of the association, and Cyrus P. Brown, of the Single Tube Co.

The plaintiffs allege that the sale of the stock of the Tillinghast association to the Single Tube Co. was fraudulent and void, inasmuch as the majority vote to transfer was obtained by illegally voting certain shares held in the treasury of the Tillinghast Tire Association, which the plaintiffs claim were unlawfully voted.

In its reply the defendant denied the jurisdiction of the court and that the plaintiff stated facts sufficient to constitute a cause of action, and, further, that "the plaintiff has not legal capacity to sue in that this suit should be brought by the Tillinghast Tire Association, if a corporation, and, if not a corporation, by its president or treasurer."

Booth entered a demurrer, and, the demurrer being sustained, the defendant appealed to the General Term, where the case now rests.

If they win, the Booth people say there will be another collection of royalties.

Goodyear Makes Seizure.

Press dispatches from Akron, O., state that the Sheriff last week seized 50,094 pounds of tires, the property of the Consolidated Rubber Tire Co., to satisfy a claim of \$51,813.90 held by the Goodyear Tire and Rubber Co.

Some Keating Claims Cut Down.

After hearing testimony on the contested claims against the Keating Wheel and Automobile Co., Middletown, Conn., Frank D. Haines, the committee appointed for the purpose, filed his report with the clerk of the Superior Court last week. The following is a list of the claims and the amounts allowed:

A. L. Garford, New York City, for supplies, claimed \$20,000, allowed \$19,692.65; R. M. Keating, Middletown, patents, etc., claimed \$90,495.62, allowed full amount; S. Palmiter, Jamestown, N. Y., supplies, claimed \$345.54, allowed full amount; F. C. Valentine, New York City, supplies, claimed \$1,419, allowed full amount; Tillinghast Mfg. Co., Providence, R. I., supplies, claimed \$425.04, allowed \$391; O. Vincent Coffin, salary, claimed \$12,500, claim withdrawn; H. H. Earle, New York, supplies, claimed \$1,724.95, allowed \$1,304.65; C. D. Rood, Springfield, Mass., notes, etc., claimed \$177,088.66, allowed \$171,602. The total amount of the claims was \$303,998.81; total amount allowed, \$285,255.46. This report will be acted upon at the next short calendar session of the Superior Court.

Dividend Unexpectedly Large.

Creditors of Lavingne & Scott, of New Haven, Conn., which firm has been in the hands of a receiver, will fare much better than was at first expected.

The final account of Receiver F. C. Lum of the insolvent concern—which manufactured pedals and other metal specialties—was handed in to the Superior Court at New Haven last week. The dividend paid is 32¼ per cent, which is a remarkably good showing, inasmuch as it was not believed 10 per cent could be saved to the creditors.

The total dividend paid will amount to \$5,550.21. The total amount of claims allowed was \$17,209.95. The receiver was able to collect all accounts shown on the books of the company.

Bought Union Stock.

The Elastic Tip Co., Boston, have purchased of the assignee of the Union Cycle Mfg. Co. all stock on hand. The purchase includes the completed machines of the various models, also all parts and tools, placing the Elastic Tip Co. in position to supply Union parts whenever they may be called for.

SELLS SPOKE BUSINESS

A. B. C. Disposes of Another Limb and Will Hereafter Buy not Make Spokes.

By one of those peculiar and unexpected turns that have marked its more recent career, the American Bicycle Co. has twisted another limb off of itself.

This time it is the spoke and nipple business of the corporation that has been disposed of, and, not unnaturally, the Standard Spoke and Nipple Co. is the purchaser.

The deal was consummated last week, but nothing is known of the figures involved. The property conveyed to the Standard people, however, comprises all of the spoke and nipple making machinery and stock owned by the American Bicycle Co., which agrees to hereafter purchase its supply from the Standard Co.

A deal of this machinery has been stored in the various American Bicycle Co. factories, but for the last year the actual work of spoke and nipple making has been concentrated in the plant in Chicopee Falls; this plant, of course, will now cease to operate. In fact, for several weeks past it has been practically idle.

Wanted Keating Plant.

In consequence of the hitch in the negotiations conducted by the New York Motor Vehicle Co. for the purchase of the Middletown (Conn.) plant of the Worcester Cycle Mfg. Co., as noted in last week's Bicycling World, the former concern next made an offer of \$75,000 for the factory of the Keating Wheel and Automobile Co. at the same place.

By an unanimous vote of the directors of the Keating company at a meeting held last week, at which Receiver Betts presented the offer of Thomas Dunn, president of the New York Motor Vehicle Co., it was refused. Mr. Dunn paid a recent visit to Middletown and made former Governor Coffin, who is the president of the company, a cash offer for the plant, which is valued at at least \$150,000. Consequently the \$75,000 offered by Mr. Dunn was considered altogether too low.

FIXING THE TARIFF

Stiff Figures Named on Cycles for the Philippines—Suggestions Invited.

Washington, D. C., March 2.—The proposed customs tariff for ports of the Philippine Archipelago, as recommended by the Commission appointed for the purpose, and with reference to which the War Department will be pleased to receive recommendations and suggestions up to April 15, contains the following provisions:

Articles not enumerated in the tariff shall, for the application of duty, be assimilated to those which they most closely resemble, and shall in the first instance be so classified by the collector of the port of entry into which the articles are brought.

When an article presented for customs clearance is not included in the tariff, and when doubts arise as to its assimilation, the interested party or the importer may request the collector at the port of entry to indicate the number according to which such article is dutiable, and clearance shall be effected in accordance therewith.

When articles are composed of two or more materials or of different parts the duty for total weight shall be taxed upon component material of chief value.

Common packing, packages, receptacles and coverings of imported merchandise in use and imported with such merchandise, unless otherwise expressly provided for, shall be admitted free of duty; if any articles so used are in fact imported as merchandise, and have an appreciable value, full duty is to be collected on same; and whenever such articles are of higher value than their contents they are always dutiable according to the number of the tariff to which they belong.

Gross weight includes all coverings of whatever nature, without any allowance for tare.

Net weight is the weight of the articles exclusive of any or all covering.

When the same package contains two or more articles dutiable on gross weight and paying different rates of duty, the articles most highly taxed shall be dutiable, together with all its separate packing and with the weight of all exterior packages. The other articles shall be dutiable separately.

The proposed rates of duty affecting the cycle trade are as follows: Bicycles, complete, except lamps, \$5 each; detached parts and accessories, including lamps, 30 cents per kilogram, net weight.

Will Reduce Capital Stock.

At a special meeting of its stockholders this week the International Automobile and Vehicle Tire Co. is considering the advisability of reducing its capital stock—the preferred from \$1,500,000 to \$500,000 and the common from \$1,500,000 to \$500,000. The stockholders will also consider the issue of mortgage or debenture bonds.

Signs of Promise.

Evidence that 1901 will prove a good year continues to accumulate. Ralph D. Webster, sales manager of the Eclipse Mfg. Co., adds his testimony to that effect, and brings figures to bear on the case. One day last week, he states, orders for exactly 4,938 Morrow coaster-brakes were received at the Eclipse factory, and, while this was above the ordinary, the daily average, together with the reports of the Morrow men, who are covering the entire country, leads Mr. Webster to prophesy that business will prove "extremely good."

Not Like Other Motor Bicycles.

While motor bicycles with the motor mounted on the front forks appear to be the most popular type on "the other side," the first one of the kind of American make is being turned out by the Fleming Motor Vehicle Co., 93-97 Elizabeth street, New York



City, the front fork carrying the entire equipment except the coil and batteries; the machine is shown by the accompanying illustration. The front fork is of special construction, and is very strongly made. The power is transmitted from the motor to pulley on front wheel by half-inch half-round belt. This belt is adjusted by a ratchet lever, which permits of the wheels being started with slack belt, and belt tightened after wheel is in motion.

The motor is placed directly in front of the steering head, and the muffler is placed down in front of the supply tank, heating the gasoline and discharging the exhaust below the forks. The gasoline tank is placed in the forks beside the front wheel, and has a capacity of two quarts, enough for fifty or sixty miles' riding. An auxiliary tank with one gallon capacity can be provided for placing over rear wheel when desired.

The speed is controlled by the timing spark, which is operated by left handle bar grip. The Fleming company will supply motor equipment, attached, ready to assemble to any high-grade frame, for \$150, or the complete bicycle, ready for the road, at \$200.

"PAYMENT ON ACCOUNT"

Rulings on Bankruptcy Law Make That Term One to be Avoided.

Owing to the latest construction placed upon the National Bankruptcy law by a number of trustees throughout the country, every creditor in any line of business when receiving payment from a debtor should see to it that the amount paid balances in full some particular bill, and must not accept payment on account, says "Business."

If they do, and the debtor goes into bankruptcy any time within the next four months, a demand will be made upon the creditor to return the amount paid on account before the balance of his claim can be considered, and failure to so return the money will result in the claim being disallowed.

Every business man should heed this advice from this day forward until this wrongful construction of the law can be done away with by the powers maintained in Congress. This new construction of the law has sprung up suddenly in several different parts of the country, and has already worked a rank injustice to creditors and bankrupts.

Rubber Goods's Dividends.

The Rubber Goods Mfg. Co. has declared another 1¼ per cent dividend on its preferred stock and one of 1 per cent on its common stock. Despite the fact, however, the common fell away the day after the dividends were announced, being quoted at 27¼. The decline was attributed to a report that the dividend was declared only after considerable discussion, and that the next dividend would be passed. This is denied, however, a director stating that the company has funds in hand sufficient for all purposes.

The Continental Caoutchouc and Gutta-Percha Co., of Hanover, appear to be about the only tire makers in Germany who are making substantial profits. They have just declared a dividend of 45 per cent.

BAD START MADE

New Century Opened with Slumpish Tendencies in Cycle Export Trade.

January, the first month in the new century, turned out badly for the cycle export trade.

By comparison with the same month of the previous year the decline of the foreign demand is little short of astounding. There is nearly \$300,000 difference between the totals of the two months—an unexpectedly heavy loss. It is spread all over the globe; only Mexico, the West Indies, China and Africa show increases.

With January the export record takes a turn and becomes the seventh month of the governmental year, which ends with June. Comparison of the totals for that period, however, offer but slightly warmer comfort than the record for January itself. The summary follows:

Exported to—	January—		Seven months ending January		
	1900. Values.	1901. Values.	1899. Values.	1900. Values.	1901. Values.
United Kingdom.....	\$32,919	\$15,645	\$382,299	\$173,155	\$135,717
France	48,885	13,144	185,016	129,096	36,711
Germany	90,530	17,751	533,731	216,639	69,588
Other Europe.....	146,050	50,111	693,871	353,154	181,517
British North America.....	29,070	11,888	183,304	97,233	68,279
Central American States and British Honduras	176	455	3,764	2,155	2,497
Mexico	1,600	3,511	25,735	17,596	11,378
Santo Domingo.....			221	202	239
Cuba	25,428	1,203	2,366	116,457	9,975
Porto Rico.....	327		1,615	1,611	
Other West Indies and Bermuda.....	2,911	4,092	37,317	31,757	29,185
Argentina	9,080	1,663	100,337	115,040	22,059
Brazil	1,499	765	40,750	19,730	7,239
Colombia	2,771	34	4,734	5,859	320
Other South America.....	6,101	2,561	33,084	44,707	19,058
Chinese Empire.....	675	2,009	17,710	15,446	8,962
British East Indies.....	1,949	632	110,169	74,704	30,015
Hong-Kong	150	300	4,036	4,964	7,227
Japan	15,528	7,716	92,546	126,548	118,492
British Australasia.....	18,295	7,658	159,055	146,362	120,252
Hawaii	4,536		19,175	24,582	
Philippine Islands.....	2,032	1,703	430	3,535	50,747
Other Asia and Oceania.....	1,387	1,159	22,426	30,261	15,300
Africa	2,591	9,842	105,275	44,824	68,073
Other countries.....			574	89	140
Totals	\$444,490	\$153,842	\$2,759,540	\$1,795,706	\$1,012,970

Like the United States, Great Britain is not particularly proud of its cycle exports for the month of January. They totalled but £42,120, as against £54,459 for the corresponding month of January, 1900—a decline of \$61,695.

By comparison with the record of this country, however, England has cause for jubilation. The United States's total cycle exports for January not only disclosed a decline of nearly \$300,000 by comparison with January, 1900, but the total was some \$50,000 less than England's record.

The story that William J. Bryan has placed an order for a motor bicycle proves unfounded. The Wisconsin Wheel Works, whose machine he was said to have ordered, say that the report was due to the hoaxing of a local reporter.

The end of the embarrassed March-Davis Cycle Co. is in sight. The factory in Chicago is to be sold on Friday and there are good prospects that it will be bid in by Arnold, Schwinn & Co., who have offered \$22,500 for the property.

Ed Davis, who was the active man in the company, has gone West to share in the management of a mine in which his father is interested. Davis, Sr., who was the "angel" of the company, has gone to Florida, after writing his check for \$30,000 of the concern's debts, which he had guaranteed. It is stated that an advance of but \$500 would have saved, or at least delayed, the March-Davis failure, but the elder Davis was inexorable and refused to put up another penny; the crash promptly followed.

Redistribution of Goodyear Territory.

The Goodyear Tire and Rubber Co., of Akron, Ohio, has taken over the premises, No. 58 State street, Detroit, and hereafter

their entire Michigan business will be handled from that address by George W. Strelinger, the manager.

Goodyear products in Northern Wisconsin and the States of Minnesota, North Dakota, South Dakota and Montana will be handled from their new Minneapolis store, Plant Bros., managers, No. 21 Second street, South, and in Illinois, Western Indiana, the State of Iowa and Southern Wisconsin, including the city of Milwaukee, by the new Chicago store, No. 86 Lake street, F. A. Hastings, manager.

These sections have heretofore been travelled for the Goodyear Co. by Eugene I. Welch, who has resigned his position to undertake another line not connected with the rubber business. In making these announcements the Goodyear Co. state that Mr. Welch's services have always been satisfactory, and they hope he will succeed in his new venture.

WANTS LESS LIGHT

Another Ill-Advised Attempt to Curtail Use of Lamps in Connecticut.

Among the various bills introduced in the Connecticut Legislature pertaining to bicycles and motor vehicles is one which has not attracted much attention.

Although entitled by its introducer, Representative Freeman, of Hartford, "An act concerning the use of bicycles," it applies equally to all rubber-tired vehicles. Its intent is to make the carrying of lights on such vehicles apply only to such public streets and highways as are not lighted. This change is secured by very simple means, as will be seen by the wording of the act, which is as follows:

"Be it enacted by the Senate and House of Representatives in General Assembly convened:

"1. That Section 1 of Chapter 189 of the Public Acts of 1899 be amended by inserting after the word 'highway,' on the second line thereof, the words 'not lighted.'

"2. That Section 2 of said act be amended by inserting after the word 'highway,' on the second line thereof, the words 'not lighted.'

"So that said act as amended shall read as follows:

"Section 1. All rubber-tired vehicles while in use in the public streets and highways not lighted shall show, from one hour after sunset until one hour before sunrise, a light or lights so placed as to be seen from the front. Such light or lights shall be of sufficient illuminating power to be visible at a distance of two hundred feet.

"Sec. 2. Any person driving or directing any such vehicle upon a public street or highway not lighted between the hours mentioned in Section 1, without light, as prescribed in said section, shall be fined not more than \$5.

"Sec. 3. The court before which the accused is tried may remit the penalty provided herein whenever it may appear that the failure to provide a light as required by this act is the result of accident."

Springfield Jobbers Burned Out.

Morgan & Ball, the well-known Springfield (Mass.) dealers and jobbers, were visited by a fire on Thursday last that practically destroyed their stock and fixtures. The loss is estimated to be between \$15,000 and \$20,000, and is fully covered by insurance.

The fire started in a small room at the rear of the basement, and its cause is not known. So far as Mr. Ball knows, there was no one in this room during the morning, and there was no one in the basement at the time the fire was discovered. Smoke was seen coming up the stairway. An investigation led to the discovery of the fire, but Mr. Ball did not think it serious enough to turn in an alarm, and so telephoned to headquarters. Meanwhile the fire gained such headway that before it was under control the Morgan & Ball establishment was gutted and the stock ruined.

"Keep Your Eye on the Little Blue Wheel!"



Bicycle racing is a long way from being dead. THE NATIONAL has always been a popular wheel with the boys who buy their bicycles. It's staunchness, reliability and easy-running qualities make it a favorite.

The Model 41 is our latest racing production. "The Little Blue Wheel" will be in many a finish this year, and its riders will be just as enthusiastic as ever.

It gives the rider a good position—different from others—is made to run easy and to stand the hard knocks which are inevitable.

It's in a class by itself.

NATIONAL CYCLE MFG. CO., BAY CITY, MICH.

GET OUR CATALOG.



Fisk Tires

Riding Season Nearly Here.

RIDER.—Don't try to worry through another season with that pair of leaky, break-down or puncture-every-other-day pair of tires you have. They simply make your cycling a burden rather than a pleasure.

Ride the Fisk and run no risk.

DEALER.—You had sundry complaints last year from your riders regarding their tires. Forestall a recurrence of the trouble this year by selling the best tires you can find.

FISK TIRES are the kind it pays a dealer to sell, because they are the kind it pays a rider to buy. They are light, full of vim, easy riding and made of such good stock that they are bound to wear.

Write us to-day for terms and territory and a copy of our beautiful 17x22 lithographed hanger, the handsomest ever issued in the trade.

FISK RUBBER COMPANY, Chicopee Falls, Mass.

BRANCHES: SPRINGFIELD, NEW YORK, SYRACUSE, BUFFALO, DETROIT, CHICAGO, 36 Dearborn St., SAN FRANCISCO, 159 Montgomery St.

REPAIR DEPOTS: 105 Reade St., New York, N. Y. 110 Portland St., Boston, Mass. 1015 Arch St., Philadelphia, Pa.

THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
"The Wheel" and the "American Cyclist."

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should

Address us at P. O. Box 2349.

NEW YORK, MARCH 7, 1901.

Eyes on Our Exports!

This issue of the *Bicycling World* should bring joy to the English trade. It carries the news that in the matter of cycle exports the United States has begun the new century in second place.

January broke badly for us. We exported to the value of only \$153,842; Great Britain's foreign trade for the month totalled \$210,600, a balance to its credit of \$56,758.

These figures, however, tell but a part of the unpleasant story. Whereas both countries showed a loss by comparison with January of the previous year, England's trade declined but \$61,695, while our loss was positively "slumpish," aggregating more than \$250,000—in exact figures, \$290,648.

The figures do not make agreeable reading, but they must be faced.

It is true that we accounted for the lion's share of the world's trade during 1900, and it may be that we will repeat the performance at the close of the current year. But past records and future possibilities hold small comfort for the alert merchant, and

none can be content to build on such contingencies.

Wherever there is a leak and a loss, it is wise to trace their source; but to locate the hole into which such a large volume of trade has disappeared is most difficult. We cannot take it upon ourselves to fathom the reasons of our export conditions, nor is the suggestion of a remedy strictly within our province. We submit the figures and the unpleasant contrasts. They tell their stories more forcefully than mere words.

It is easy to suggest that our manufacturers are not as active in seeking foreign trade as they might be and as they have been. It is as easy to suggest that the export commission houses, upon whom so many of them depend, have not been as zealous as in former years, or that they have found other and newer loves. Both intimations may contain the germs of fact; but, whatever the cause, it is certain that a prod of some sort is necessary in one direction or the other.

There is no good reason this side of the skies why Great Britain's foreign business should overtop ours.

As to "Stripping."

One peculiarity of the present season which distinguishes it in some measure from preceding ones is the prominent position occupied by stripped machines and the manipulation attending this stripping.

There has been in the past, of course, plenty of stripping, just as there are being sold at the present time plenty of complete bicycles; but neither fact detracts from the assertion that the feature of the year is these same stripped machines.

The term is one which lends itself very readily to manipulation. "Stripped" may mean much or little, and the voluble salesman is usually more intent on making a sale than in explaining to the dealer just what has been stripped from the bicycle and will have to be supplied before it can be retailed.

In the matter of price there can be no real comparison until it is made plain just what "stripped" means. At a 50 per cent advance one machine may be really cheaper than another with which it is forced to compete.

Consternation was created a month or two ago by the announcement that a certain machine was being offered at a price from 25 to 50 per cent under the lowest figures at which rival travellers could quote. This was heightened by the additional discovery that the first machine was securing the business.

Light was thrown on the matter, however, by the persistent efforts of a wideawake and suspicious traveller for another concern.

His inquiries developed the fact that the unprecedentedly low-priced machine was sold "stripped." Furthermore, this elastic term was stretched to its fullest extent. By "stripped" was meant a machine minus tires, saddle, pedals, handle bar, chain, saddle post and—most marvellous of all—crank-hanger group, it being designed to take a well-known make of those parts.

The cost of this equipment, figured on the lowest possible basis, brought the cost within striking distance of the price of other machines, while if figured on a better class of goods it equalled or exceeded the latter.

This discovery let the cat out of the bag, of course. But it is probable that some dealers who did not figure the matter out carefully enough were fooled and bought machines which in the end cost them considerably more than they expected. A much larger number were led to believe that the machine in question was being sold at an exceptionally low figure.

All of which goes to show that there are stripped bicycles and stripped bicycles, and that the dealer who buys them will do well to learn just what he is buying.

What the Signs Indicate.

The independent maker who recently reported the best January in his seventeen years' experience is not alone in his glory. The *Bicycling World* has it from several other leading "independents" that business is unexpectedly good and running much better even than last year, which was a satisfactory one from their viewpoints.

Dealers and jobbers repeat these encouraging reports. The mild winter has helped the trade amazingly, and if the spring holds true 1901 is likely to be recorded the best season in years, and the second in which the "independents" have swept the boards, so to speak.

Cycles and Cycles.

It is, of course, eminently befitting that things cycular should move in cycles; but it is none the less interesting and curious how true this fact really is.

For years after the safety came in—succeeding, as it did, the high wheel, a model of simplicity and lightness—weight was the least of the problems facing designers. Few riders gave it a serious thought, and no maker would consent to even discuss the matter of weight reductions.

Consequently the safety was loaded down

with "contraptions" of all kinds. Springs proved to be the straw which eventually broke the camel's back, and pneumatic tires made possible the weight reductions which were being imperatively demanded.

Once fairly started in this direction, every consideration had to give way before the question of weight. Every device that involved the carrying of an unnecessary ounce of weight went by the board, and the bicycle emerged from this debauch stripped of everything not absolutely necessary to the riding of the machine.

The sixteen to twenty pounders of the middle nineties, denuded of every comfort-producing feature and with no reserve of strength to carry them through any emergency, were the result.

The turn of the tide came in due course, and from 1895 to 1897 weights rose remorselessly. Tubing, hubs, sprocket wheels—all increased in size and strength, and a vastly improved machine was the outcome.

Of late years few persons can have failed to notice that the tendency in cycle construction has been toward increased comfort. Now, greater comfort means increased weight, and it is only because we were in the throes of a reaction against weight—a very mild reaction this time—that we did not add weight as we added comfort.

As it happened, one tendency balanced the other, and the net result was that weights remained stationary, unless we dispensed with the comfort referred to, in which case there was a slight reduction in weight.

In other words, the rider who fancies any one of the three C's—the coaster-brake, the chainless or the cushion frame—and has one or more of them incorporated in his new bicycle, foregoes the slight gain he would otherwise have made over his constant antagonist—weight.

Of course, such selections are made for reasons sufficiently cogent to prevent their being overbalanced by considerations relating to the slight increase in avoirdupois necessitated. But had there not been such a reduction in other respects as to avoid a net increase in weight, it is not likely that the matter would have been regarded so calmly.

As long as the entire task of propelling the machine devolves on the rider, just so long will the weight question figure prominently.

The Definition of Motocycle

In London the courts have been called on to define a motocycle, or at least to define the difference between a motocycle and a

motor car, as they misleadingly term a carriage on "the other side."

In another column our London correspondent refers to the case and gives some idea of the wide divergence of opinion that prevails.

The contention that tubular construction—that is, the use of tubing—marks the distinction between the two forms of vehicle is too silly, too absolutely ridiculous for acceptance by the normal individual. In fact, there would seem small reason why two minds should disagree as to the proper definition or distinction.

Whether made of wood or of steel, a cycle of whatever type is distinguished by pedals and a saddle, and by the fact that the rider or user sits astride. The mere circumstance that the pedals may be employed but a part of the time, or that their use on a particular type involves greater physical effort than on another, does not alter the case, and such contentions are unworthy of consideration; the cycle is none the less a cycle, the English assertion to the contrary notwithstanding.

No carriage, car, truck, dray or other form of vehicle has either saddle or pedals, or has ever had them; the cycle has both, and has always had them.

The difference is right there, and the line of demarcation is so deep and distinct and drawn so clearly that we cannot understand why even Englishmen can disagree on the point.

The car or carriage which is to be assisted ever so little by pedals, or in which the user sits astride, is still to be built.

Safe Conservatism.

Usually at this time of the year the air is full of stories of the wonderful business that is going to be done just as soon as the selling season opens.

Makers are rushed to death with orders, and are working day and night to place themselves in a position to cope with them. Long ago they made preparations to double or quadruple their output, and are concerned only with the actual work of getting it out in time.

It was the same way with the dealers. They saw visions of an overwhelming army of purchasers descending on them, all determined to secure bicycles at any price; and the only fear of the dealers was that they could not get deliveries fast enough.

This year, however, there has been a marked absence of this species of exaggeration. The entire trade has been deeply

tinged with conservatism, even discounting the encouraging signs which cropped up now and then.

Instead of viewing these through rose-colored glasses, they have been scrutinized closely, distrusted where there was any room for doubt, discounted even when they withstood inspection.

If they are borne out by the results—a consummation greatly to be desired and not as improbable as it appeared to be a few months ago—the trade is not likely to be found unprepared.

But overproduction, due to these highly colored reports of a small-sized boom, is the most unlikely thing of all.

The Price of Expansion.

The proposed Philippine tariff provides a duty on bicycles of \$5 each and on parts and sundries of 30 cents per kilogram (2 1-5 pounds). Pending its enactment the War Department will receive suggestions and recommendations up to April 15.

At the present wide divergence of price an arbitrary tax of \$5 that makes no distinction between the fish, fowl and bad red string in bicycles can scarcely be termed equitable, and should furnish the trade basis for a suggestion that should sound mightily like a first-class protest.

The price of "benevolent assimilation" on parts and sundries is as one-sided. The duty proposed is quite equal to the list prices of not a few articles weighing 2 1-5 pounds and over.

It is want of diligence rather than want of means that causes most failures, says an eminent observer, and the remark applies with considerable force to those dealers who are waiting to see what the coming season will bring forth, meanwhile making absolutely no effort to create an opportunity or even to seize it if one should come along.

Canada is becoming a factor in the cycle export trade. It is well that the fact be not overlooked. She was represented and reaching out not only at the London exhibitions, but at the Paris show as well.

And now the spoke and nipple stone has been knocked from under the monument! That statue of Concentration is losing all semblance of what it was supposed to represent.

Trade will pay for any loss we may suffer to gain it, whereas nothing will repay us the loss of trade.

WHAT IS A MOTOCYCLE?

English Courts Wrestling With the Question—Straining at Gnats Results.

London, Feb. 20.—The great matter of interest in the motorcycle world this week is the case of the Agricultural Hall Co., Ltd., against Cordingly. In this the point of what is a motorcycle may have to be definitely defined and decided by the court, and up to the time of writing the judge seems to have a hard task. A judge may do his best, but how is he to know all things? He may not be a cyclist or a motocyclist, or a motorist, and so the result depends largely upon evidence, which is often genuine, sometimes bought, and generally misleading, because, however honest a witness may be, the law and the counsel engaged take good care that his real views shall not come out. That is the noble game of English law—bolstering up a mass of incongruities for the simple purpose of keeping a great number of idle young and old men in pocket money.

On the broad fact of the definition I have no doubt whatever. The term "cycle" colloquially means a machine upon which the rider sits and to which he imparts motion by means of his physical power. A motor car is a vehicle which is propelled by mechanical means solely. A motorcycle is a machine which is propelled partially by a motor, and, in certain places and under certain conditions, by the physical power of the rider, either separately or in conjunction with the motor. Thus it follows that a motorcycle must have pedals or some other means of applying foot power, or some means by which the manual power of the rider can be used. There are some cars which have motors started by the pedals, but are so heavy that the rider could not materially help the motor uphill or on bad roads. Such vehicles are clearly motor cars, for the physical power of the rider cannot propel them effectively.

On the other hand, the Light Locomotives act of 1896 rules that all vehicles upon which a motor is fixed and are propelled by that motor are light locomotives. Upon this the defence of the action is largely based, for it is said that therefore all motorcycles are light locomotives, just as cars are held to be. This view of the matter was supported by Mr. Boverton Redwood, but he was not very clear as to how it came about that the trade call certain light locomotives motor cars and others motorcycles. He thought that it was something to do with the general design. Another witness supported this view of the case, and went so far as to say that it was a question of tubular frames. In that case the Bollee car would be a motorcycle, and so would a landaulette of the style of the Ivel, notwithstanding that this vehicle weighs nearly a ton and is fitted with motors of 8

horsepower. I am afraid that when the use of tubular frames is made the line of difference the matter becomes more and more complicated. The definition set up by one of the railway companies seems much more clear and much more reasonable. The companies' definition is that a motorcycle is "a machine capable of being partially propelled by feet or hands." Thus the company will take a quad from Newhaven to Dieppe for \$3, but would charge \$10 for a Bollee, although the latter has only three wheels.

It is quite possible, however, that the Court may not give a definition, after all, but may merely decide the case on the broader issue as to whether the wording of the agreement debarring Mr. Cordingly from exhibiting cycles "of any kind or description whatsoever" can be held not to include motorcycles. To the average man a motorcycle is certainly a cycle of some kind, but the lawyers rarely seem to take a common-sense view of these matters. At the time of the agreement motorcycles were hardly known, so that in equity it is probable that Mr. Cordingly was not a party to the full meaning of the wording as applied to-day. The Court may possibly hold that this is sufficient to release him, so far as motorcycles are concerned. But, again, it is impossible to say. A good deal hangs in the balance, particularly for the Stanley Cycling Club, which evidently wants to develop the motorcycle portion of its annual show, which it can hardly hope to do successfully if motorcycles in any quantities are exhibited at other exhibitions held in the same building at other seasons of the year.

As it now seems almost impossible to avert the numbering of all motor vehicles, the question which presents itself to the motocyclist in this country is, How large are the number plates to be? With the motor car this does not matter materially, but with the motor tricycle, and still more with the bicycle, the subject is one of some considerable importance. According to the views of some of the police authorities, the numbers must be sufficiently large to be easily legible when the motors are travelling at a fast speed, and as the numbers will run into four figures immediately, and five in the very near future, it is obvious that the plate will have to be fairly large. Placed behind the saddle it is more than likely it would be accidentally hidden by the rider's clothing—and hiding the number is to be made a most serious offence. Situated low down, it would soon be rendered illegible by dust and dirt, so that, in any case, the motocyclist will certainly have trouble. It is also necessary, according to the police, that the number plate be legible from the rear, so that carrying it immediately above the front wheel will not do. Experience with the number cards at race meetings has shown that attaching a number plate to a cycle in such a way that it shall be in full view is not so easy a task as at first appears.

DOWN IN DELAWARE

Worst is Over in Wilmington and Dealers Look for Improvement.

Owing to the extremely hilly condition of the streets of Wilmington, Del., and the utter lack of decent roads in the surrounding country, cycling there has lost much of the phenomenal popularity which it enjoyed a few years ago. Then thousands of wheels were in constant use, for pleasure trips as well as for business purposes. Everybody rode, and few households in any class of society were without at least one bicycle.

The reaction came, however, and was proportioned to the intensity of the movement. "Society" withdrew its favor, and the various strata below it followed its example. Only enthusiasm was equal to the task of retaining interest in a pastime pursued under such difficulties as beset it in the Delaware metropolis; and when the novelty had worn off, and everybody and his neighbor had taken to the wheel, the turning point was reached.

For several years now the bicycle has been used as a business vehicle, to the almost entire exclusion of the pleasurable use to which it was formerly so largely put. The prevalence of paved streets in the city almost offsets the frequent hills, and by no stretch of the imagination can the city be pictured as being deserted by this class of riders. They are seen everywhere, and not even the omnipresent trolley car can hope to shake the hold of the bicycle as an expeditious, cheap and ever-ready method of getting about town.

Even in Wilmington, however, the pendulum had swung too far in this direction. There are signs that a change for the better is at hand. Dealers report that old customers who during the last two or three years have taken little or no interest in the pastime are beginning to turn their thoughts in its direction again. Having first pursued it too ardently, the reaction took the form of almost total neglect; now there is a disposition to see what moderation will do.

It is, of course, idle to expect a repetition of the scenes of half a dozen years ago, when the craze was greatest. All that can possibly be hoped for is an improvement which will place the bicycle in Wilmington where it is in other towns where good roads are the exception and not the rule.

Such a betterment is all the dealers talked with look for. But even it, they say, will be a gain over present conditions.

Special Figures on Small Lots.

The Willis Park Row Cycle Co., of this city, has purchased the remaining stock of the Elmore Mfg. Co., a deal involving some twelve hundred bicycles. To move the stock the Willis people are naming special prices to dealers buying lots of five or more machines.

STORE CHARACTER

What it is and How it Shows Itself—The Average Dealer's Failings.

Many may differ with me and say a store has no "character," but, for the sake of argument, let us assume that a store has character, the same as its proprietor and clerks have. It is something, says a hardware man of twenty years' experience in a small town, upon which the personality of the proprietor and salesmen have great influence and effect.

Christ said, "By their fruits ye shall know them." Hence proprietors and clerks are usually judged by their store. You all know what a pleasure it is to go into a store and at once feel as you cross the threshold that pleasant sensation which we call feeling "at home." You also know what it is to go into a store and immediately realize from the reception you receive at the hands of the proprietor or clerks that you are an intruder, and must at once make your wants known and get out again.

All stores usually partake of one or the other of these two "general characters." Hence it need hardly be said that the store in which a customer feels most "at home" is where he will do his buying. Now, the store in which one feels most at home is not a dingy and uninviting place, where the last invoice of goods to arrive has only been partly unpacked, with boxes and box covers on the floor and counters, and straw and sawdust scattered over everything, nor where the accumulation of dust and dirt has gathered for weeks, minus, of course, the little which has been daily removed from the top with the broom.

Neither is it the store where goods are kept in an untidy fashion without systematic attempt at display. Nor is it where idle men and boys are encouraged to loaf or spend their leisure hours for a social smoke or to talk politics. Again, it is not the store where proprietor and clerks are indifferent to their duties or seemingly unwilling to take the trouble to display and show their goods to the best advantage, or who continually endeavor to persuade their customers that they do not know what they want. Above all, it is not the store where proprietor or manager does not continually keep a watchful eye on his store and salesmen, sees that everything is kept clean, neat and tidy, and where he himself is not always on hand during business hours to give pleasant personal attention to his customers.

The store in which the customers feel most at home is rather where you greet them pleasantly and cordially as they come in, and when you have ascertained their wants show them the goods called for, fully explaining to them the size and quality of the article.

If it is a stove they are looking for, take up your talking points systematically and intelligently. Don't tell them what the stove

cost you—as they won't believe you—nor what you will sell it for, and finally offer it for \$2 or \$3 less. Name a price, and if they say it is too high or you are asking too much, or they can do so much better elsewhere, show them something cheaper, explaining as fully the cheap qualities of the cheaper stove as you do the good qualities of the better.

Take as much pains in calling the attention of your customer to the poor qualities of the cheaper article as you do the good qualities of the higher-priced article. You may say, "Why do this?" I will tell you why. In making a comparison between a good article and a poor one you have a good opportunity to convince your customer that there is a difference in hardware as well as in dry goods, clothing, boots, shoes or any other line of merchandise, and at the same time explain to him that the cheap goods you are showing and describing to him are the same in quality as those usually quoted by catalogue houses and cheap John stores, and I venture the assertion that you will nearly always sell him the better grade of goods, and your customer will not come back in a week or month and condemn you for selling him a worthless article.

For example, I have on my wringer rack two cheap wringers—one an iron frame, the other a wooden frame. These wringers are marked to sell for \$1.25 and \$1.75 respectively. They have been on that rack for three or four years. I call attention to these every time I have a customer for a wringer.

But after I have called in play the senses of hearing and seeing, my customer usually selects a good wringer and goes away feeling that he has not given his money for an experiment, but has paid a fair price for a good article.

We cannot all have fine stores, with the latest, finest and most expensive fixtures, such as counters, shelving, sample boxes and fine plate glass show windows in which to make displays; but we can all keep our stores clean and tidy and our goods arranged in as attractive a manner as circumstances will permit. Every article should be in its proper place, where we can lay our hands on it at a moment's notice, and at all times know whether we have such and such articles in stock when called for.

What can be more embarrassing to a merchant than to spend half an hour in his own store looking for a certain article which he is expected to carry in stock, and find he is just out, but will have it in a day or so? In conclusion let me say we can all have a friendly greeting for our customers as they come in, and a pleasant word with them while doing up their parcels or while making change. When our stores acquire a reputation for pleasant and honest dealings we will find it worth more to us than any other asset, and will bring us annually new customers and many sales which would otherwise find their way elsewhere.

It is a matter for regret that most stores do not possess this store character. If they did, merchants would not so often wonder why it is that certain people do not buy more goods from them, and why they do not seem to feel while in their store that pleasant sensation we call being "at home."

SLAVES TO DETAIL

How the Heads of Many Houses Weaken or Misdirect Their Energies.

There are men who think nothing can be well done unless it is done under their own personal direction. These men are but slaves to their businesses, says Printer's Ink.

Men boast that they know every small detail of their business. They point with pride to the many and varied details that are executed under their direction, and frequently express regret that seeing to the execution of these details leaves them little time for other work. They take pride in conveying the impression that every minute of their time is fully occupied.

The business man ought not to devote more time to business than his employees do. Physically and mentally he is constructed very much the same, and, sooner or later, overwork or constant mental strain will manifest itself in serious disorders. The business man who goes to work in the morning with a tired brain or diseased body cannot do as much or as effective work as the one who forgets all about his work at a reasonable hour each day and refreshes his mind and body by a good night's sleep. Overwork sooner or later deprives one of the ability to do effective work.

The successful business men are those who manage men and leave the men they manage to manage the details. Of course, it's a good thing for the merchant to know details, so as to determine occasionally whether or not those under him are doing effective work, but the merchant who constantly sees to the small details of his business is wasting time that could be employed to better advantage.

The business man cannot exercise too much care in employing managers for his different departments, but when employed he should allow them some liberties as to methods of work, etc. When a merchant is sure that a competent man has charge of his advertising he will make no mistake by letting him advertise the establishment in his own way, since if the manager understands his business he must know more about advertising than the merchant does.

A business man cannot know it all. He cannot know as much about advertising as the man who has made advertising a life study; he cannot know as much about business management as the man who has made a specialty of this. And yet there are hundreds of business men who keep their managers from doing their best work by insisting on the employment of methods that the managers know will not bring the best results.

It's the lack of confidence in his employees that makes a business man a slave to his business and the employee a slave to his employer. When a business man employs a manager he should have sufficient confidence in his ability to let him conduct the business in the way he thinks it ought to be conducted. A person ought not to worry when he has a man hired to do the worrying for him.

ROADSIDE REPAIRS

Ingenuity Inspired by Prospects of Weary Walks—Experiences Exchanged.

Some were of the trade, some were not; but all were wheelmen who had played prominent parts in the development of "the cause," and when they fell to talking about roadside repairs it was cause enough for any newspaper man to prick up his ears.

The use of postage stamps as patches on inner-tube tires and of chewing gum and tire tape for plugging single tubes had been remarked, but the party refused to accept these extemporaneous repairs as either new, novel or ingenious.

"Why, on a certain century run I did better than that," interjected one of the crowd. "With but fifteen miles to go, my front tire went flat as a pancake, and I was left behind at a roadhouse to care for my own troubles. I hunted for punctures; I tried for a leak at the valve, and did everything a man could do. But I could find neither puncture nor leak, and as there was a time limit on the century I finally ripped the danged tire off the wheel, borrowed a coil of rope from the roadhouse, wrapped it in the rim and after fifteen miles of agony got home that way."

"Something of the same sort happened to me," chimed in the man from Brooklyn, "only I filled the tire with water and limped home that way. If ever you want some interesting sensations, try water as a filler!"

"Would the use of a broom handle or a bough of a tree as a substitute for a broken handle bar rank as ingenuity?" asked the cautious man.

The party voted down the suggestion.

"For really clever repairs I think the country boys—the greenhorns in the backwoods—are a deal cleverer than is generally supposed," put in one of the two dealers who were present. "Some of the most ingenious jobs I've ever seen have come from the backwoods. The way the farmer boys can handle their jackknives is a caution. I've had broken forks and frames and bars come into my shop in which whittled dowels had been inserted and the broken parts bound with twine, and the jobs done so well that the hands that did them seemed worthier of something better than guiding a plough."

"Talk about whittling!" said the other dealer. "The greatest repair I ever saw or heard of was made with a pocket knife. The story sounds tall, and I myself would not believe it if I had not seen it made, and it wasn't made by a countryman, either, but by a city chap born and bred. There were five in our party, and we had struck back into the country, where towns were small, and few and far between at that. To reach our destination for the night it was necessary that we reach a would-be steam ferry before dark. If we missed the boat we would have to stay in the woods all night

or bunk in a barn, and, as luck would have it, one of the boys broke down—something had happened to his front wheel, and the ferry was still eight or ten miles away.

"On examination it was found that the outside lock nut had worked loose, and the adjusting cone run up on the balls and locked the bearings; in consequence something had to go, and it was the cone that went; it was smashed into bits, and half the balls were lost. We knew there was no repair shop within ten miles, and between expressions of disgust and hopelessness it seemed that the unlucky one would have to foot it. The quiet man of our crowd, however, decided otherwise. He took out his knife, hunted in the woods until he found a branch of a tough young pin oak, and then he sat down and commenced to actually whittle a cone of wood to take the place of

the machine over on its back, pulled the forks straight and removed the front wheel from the forks; then we took off the rear axle nuts and washers from one of the other machines and sprung the forks of the disabled wheel onto the axle of the other one, and, tightening up the nuts, converted the two machines into a three-wheeled tandem. It is a trick worth knowing."

"I agree that the prospect of a ten-mile walk is a great stimulator of inventive genius, but as for myself, mine was never stimulated to any great extent," drawled the quiet man. "I belonged to a club that elected and repeatedly re-elected as its captain a bicycle dealer who was also an expert repairer. He was the most obliging and good-natured fellow I ever met, and his popularity was well earned and deserved, I can tell you. We were hard riders, and did not stick to beaten paths; and even before we made him our captain the dealer had proved himself a good Samaritan on numerous occasions.

"As soon as he came to know us well, and after he had several times proved a handy man when our wheels went wrong, he rigged up a zinc box on his bicycle, and it became a feature of our runs. He had it filled with chain sides, centres and rivets, valve plungers, nuts, bolts, balls, washers and tire cement, plugs and patching rubber. He also carried a file and a riveting hammer head, the handle of which was whittled out of the limb of a tree when occasion required its use, and many are the times when the man and his little zinc box have saved us long tramps and railroad fares.

"He seemed to take delight in making our repairs, and we would have been a set of ingrates had we not recognized his worth and made him our captain.

"I don't know whether his obliging nature helped 'Cap's' business in the long run, but the boys swore by him, and when other dealers in the town sold a wheel it was usually because the boys of our club did not know the purchaser. It was 'Cap's' obliging nature, however, that dampened my roadside ingenuity. He was always so blamed willing to do my mending for me that I never had the heart to refuse him."

And the quiet one stuck his tongue in his cheek and looked toward the white-aproned waiter and likewise nodded.

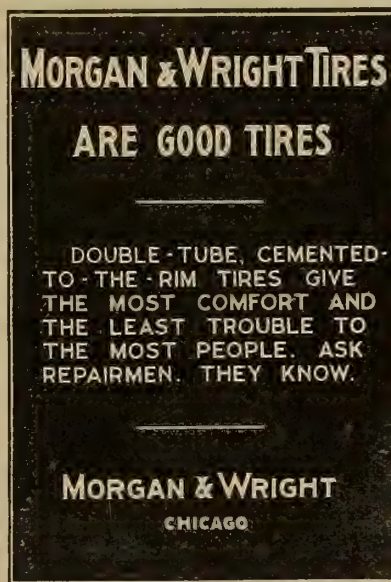
Showed at New Haven.

Considerable interest was shown last week in the Cycle Show held by the New Haven (Conn.) Young Men's Christian Association. Although there were some absentees, the trade as a whole was well represented, while a number of automobile concerns were also among the exhibitors. Music, trick riding and gymnastic exercises helped to provide entertainment for the spectators.

Among the bicycle exhibitors were N. B. Whitfield, Arthur Griggs, McGowan Cycle Co., A. W. Werle, Campbell Cycle Co. and J. N. Boyce.

Single Tube Tires.

Contracts for season's trade solicited at prices below Licenses. Protection guaranteed. Mineralized Rubber Co., 18 Cliff St., New York. ***



NEW YORK BRANCH: 214-216 WEST 47th ST.
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Near Fort Hill Square.

the steel; and he did it. He shaped it to fit the ball race, and, drilling out a hole through the centre with the small knife blade, he screwed the cone in place, and, tightening up the outside axle nut, the repair was made. The question then arose, Would the cone last, and how long? It lasted, however, and the machine ran all right for miles and carried its rider to his destination without trouble, and upon examination the next day the wood cone showed remarkably little wear."

"That certainly was ingenious; and, now that you mention it, I recall one instance where this ability to make something of nothing came in very handy," said another of the party. "We were riding down quite a steep hill, when one of the boys struck a stone; his wheel sheered off to the side of the road, and before he could regain control he found himself sprawling in the bushes. There was a badly smashed front wheel and bent forks as a consequence, but we had a man for the occasion. He turned

The Retail Record.**FIRES.**

New York, N. Y.—Henry Messenger Cycle Sundries Co., loss \$2,000.

EMBARRASSMENTS.

Dundee, Mass.—Chandler & Engle, filed voluntary petition in bankruptcy.

Newport News, Va.—Peter Maguire, filed petition in bankruptcy, with \$2,381 liabilities and \$1,323 assets.

NEW STORES.

Muncie, Ind.—H. H. King.

Malden, Mass.—V. Chisholm.

Deep Creek, Va.—H. E. Trent.

Nazareth, Pa.—Rowland Arner.

Southport, Conn.—W. C. Jennings.

New Haven, Conn.—B. M. Prescott.

Rockland, Mass.—Chapman & Co., School street.

Grand Rapids, Mich.—W. D. Phippen, 237 East Fulton.

Salem, Mass.—Cooper & Wing, 289 Essex street, reopen.

Urbana, O.—Sylvester Dickenson, North Main street.

Waterbury, Conn.—T. H. Graham, rear 63 East Main street.

Charlottetown, P. E. I., Can.—P. G. Armour, repairing.

Medford, Mass.—F. H. Greaney, Park and Washington streets.

CHANGES.

Indianola, Ind.—W. H. Wadsworth has sold an interest to C. W. Dow.

Princeton, Wis.—Weinkauff & Whittemore have dissolved; Weinkauff will continue at old stand, and Whittemore will open another store.

Marysville, Cal.—E. O. Webb, removed from Palo Alto.

Littleton, N. H.—Bellows & Baldwin succeed Bellows & Son.

Saco, Me.—John Lawrence has put in an enamelling plant.

North Adams, Mass.—A. S. Williams, of Hoosac Falls, has purchased business of Berkshire Cycle Co.

Ithaca, N. Y.—Nathan Hanford, North Cayuga street, is making extensive improvements.

Southampton, N. Y.—Henry N. Clark succeeds Grundy & Co.

Trenton, N. J.—Josiah Amisson, East State street, closed.

Waterville, Me.—Beach, Scates & Co. succeed H. N. Beach.

Beaman, Ia.—G. T. Cowgill has sold out.

Burlington, Kan.—J. B. Young & Son have sold out.

Girard, Kan.—Barker & Hitch have sold out.

Roseburg, Ore.—H. G. Householder has sold out.

Fairdale, Ill.—W. I. Miller has sold out.

Ewenton, Mo.—McLemore & Ritchie succeed Holman & Ritchie.

Fairfield, Ia.—A. B. Camp succeeds B. E. Ramsey.

Burr Oak, Kan.—Ross & Tayler succeed O. N. Ross.

Milton, Vt.—Washburn & Mulvihill succeed E. D. Teachout.

Brooklyn, Ia.—A. F. Bosworth & Co. succeed Leonard & Drake.

Allegan, Mich.—Phillips Bros. succeed Abell, Phillips & Co.

Chicora, Pa.—E. F. Harp & Son succeed E. F. Harp.

Wolfboro, N. H.—W. H. Swett succeeds Thomas L. Thurston.

Wren, O.—Myers, Cully & Co. succeed Myers & Jones.

Cottonwood Falls, Kan.—Harris & Duckett succeed R. B. Harris & Co.

Mesopotamia, O.—Sealy & Meige succeed C. E. Holcomb.

Shelby, Neb.—David Kuerr & Son succeed T. E. & C. E. Casselberry.

Bells Displayed to Advantage.

If "goods well displayed are half sold," the New Departure Co.'s bell stand should aid considerably the sale of bicycle bells.



The stand, which is here illustrated, is a handsome creation. The frame and base are of blued metal, while the elbows or joints are nickled. This, with a display of nickled bells, affords a contrast that is both eye-pleasing and effective; indeed, a couple of the stands would not only display the bells to advantage but would be in the nature of an embellishment to any store.

Abbott, Tex.—Price & Lucas succeed James H. Price.

Charlotte, Mich.—Garber & Smith succeed William Boyles.

Harbor Springs, Mich.—Foster, Burke & Wilson succeed Foster & Burke.

Ida, Mich.—Weipert & Consino succeed N. A. Weipert.

Grant's Pass, Ore.—W. A. Paddock succeeds T. A. Hood & Co.

Findlay, O.—Ruthrauff & Phillips succeed John Ruthrauff.

Wayland, Ia.—Luellin & Wittrig succeed Luellin & Yont.

Tentopolis, Ill.—Weber Bros. succeed Ben Weber.

Evansport, O.—T. E. Shuter succeeds Snider & Shuter.

Moscow, O.—Hall & De Bruler succeed F. C. Hall.

Cylinder, Ia.—M. M. Olsen succeeds Olsen & Moore.

Hartford's Well Stocked Supply House.

It is entirely safe to say that no firm carries a larger or more varied stock of bicycle supplies and sundries than The Post & Lester Co., of Hartford, Conn. A view of their warerooms is a revelation to those who have been in the habit of looking on such a business as one of small things, and its size and the completeness of its stock are an earnest of the ability of the concern to give prompt attention to all orders received.

The business was started in 1893, and for eight years its original name, the Cycle Supply Co., served the purpose. The aptness of the name, however, was a constant temptation to others to copy it, either in whole or in part, and after determined but futile attempts to discourage this form of flattery it was deemed best to change the title to one that could not be imitated. The names of the founder, D. J. Post, and of the second partner, H. W. Lester, who joined forces with the former in 1895, these being the two men chiefly responsible for the success of the enterprise, led to the adoption of the present title.

In addition to the complete line of bicycle supplies and sundries, which for 1901 is even larger than usual, the concern has added golf goods and is prepared to supply everything in this line which the most ardent devotee of the pastime may require.

How Five Racycles were Sold.

Untoward circumstances frequently influence the sale of an article. A notable instance of the sort recently occurred in Denver, Col. A cycle thief was arrested in that city for stealing seven bicycles, one of them a Racycle.

At the trial it was necessary to prove one or more of the bicycles to be worth \$20 or more in order to make the theft a penal offence, and as the bicycles had been used the submission of such proof was not an easy matter. At this juncture R. A. Creek, the Racycle agent in Denver, was summoned, and demonstrated to the satisfaction of the jury that a second-hand Racycle was worth that money; conviction promptly followed.

The Racycle dealer's testimony made such an impression on one of the thief's victims that immediately the trial was over he not only visited the Racycle store and placed an order for one of those wheels, but the next day brought four of his friends, who made similar purchases.

Recent Incorporations.

New York, N. Y.—Garner Mfg. Co., with \$25,000 capital, to manufacture detachable bicycles. Directors, J. E. Garner, Eva Z. Attwell and W. E. Handy.

Newark, N. J.—The Metal Casting Mfg. Co., a Massachusetts concern, with \$150,000 capital, all paid up, to manufacture composite castings. M. D. Stebbins holds 14,996 shares of the 15,000 issued, and one share each is held by Edward D. Chapin, W. F. P. Fogg, Arthur I. Nash and John D. White.

SITUATION IN FRANCE

Makers There so Engrossed With Motorcycles That the Other Kind Suffers.

Paris, Feb. 22.—The motocyclists who went down south right under the shadow of the Pyrenees to take part in the Pau meeting did not find much of a change from the bitterly cold weather they had hoped to leave behind them in these more northerly climes.

The fur coats were not much of a protection with the mercury concealed in the bulb and the frozen air shifting just enough to make it feel even colder than it was. Therefore the motocyclists had to take excessive precautions in wrapping themselves up, and Osmont came out equipped from head to foot with a woollen-sacklike garment, with just a slit to see through, making him look for all the world like a member of the Spanish Inquisition; and, notwithstanding this, he nearly dropped off his machine when he finished, utterly benumbed with cold. Every susceptible part of the tricycle had to be covered, such as the pipes and carburetter, and there wasn't much fear of the motors gripping through overheating. Some of them, indeed, gave trouble from quite another cause. Soon after Mr. Ayrton had started in the race he found that his motor would not work, and on a close inspection he discovered that his cylinder was cracked through the freezing of the water he had left in the jacket overnight. Béconnais had trouble from a similar cause.

The moral is obvious, and is so often insisted on that it is surprising such experienced motocyclists should have taken no trouble to avoid accident. The water tank and jacket should always be emptied before being put away on a cold day, unless you care to add a little glycerine to prevent the water from freezing.

There were only three motocyclists in the race from Pau to Peyrehorade and back, a distance of eighty-seven miles. Ayrton, who rode a De Dion tricycle, gave up for the reason stated above, and Béconnais's cracked cylinder soon put him out of the running. The only man to get through was Cormier, who had a 4-horsepower De Dion motor, and he covered the distance in 4:32:55, which is perhaps nothing very remarkable, but he only entered as a tourist, and but for the accident to Béconnais the time in the motorcycle class would have been considerably reduced.

In the circular race on Sunday by way of Pau, Dax and Bayonne, a distance of 205 miles, the tricyclists showed up in stronger force, and also with very powerful engines. Osmont had a single-cylinder De Dion motor developing 8 horsepower; Loste had a couple of 4-horsepower motors, and Béconnais and Gasté rode the 6-horsepower Soncin tricycles which they used in the Paris-Toulouse race last year. You can just

imagine the tricycles ripping along with these high powers, unless they rip up themselves under the excessive strain, and with these racing machines it is a question of getting first or nowhere. If the tricycles stand the strain and the tires do not get torn to pieces when taking corners they are able to cover the ground at a phenomenal speed. On Sunday Osmont did the 205 miles in 5:24:35, or an average of about thirty-seven miles an hour, which is good enough under the circumstances, but rather less than what we look for under more favorable conditions. The two Soncin tricycles were second and third. As for Loste, he disappeared altogether.

And now let me hark back to the Paris show, where there were many interesting things to learn—things that we already knew as to the immense popularity of the motorcycle and its influence on the ordinary bicycle. There are some people who say that the motorcycle itself is on the down grade, but I have given my reasons for not believing it. There is undoubtedly a feeling in some quarters that the voiturette may prove a powerful rival to the motorcycle, but a great deal must be done before the little carriage can become so reliable and convenient as the machine with auxiliary pedals. In any event, the voiturette will grow in the same way as the motorcycle will continue to increase in public favor, and there is no reason why the cycle maker should not profit from both these means of locomotion. All the French cycle firms are building motorcycles, and most of them, finding that there is a big demand for voiturettes, are going into this branch of trade as well. They are the better able to cater for these requirements than the motor-car builders, because the voiturette is in reality a development of the motorcycle, and it has all the characteristics of cycle construction. The frame is built of tubes and has cycle wheels, and the cycle manufacturer can make his own transmission gear, even if he has to buy his motors from other people. The body of the voiturette over here is nearly always constructed by carriage builders, a good many of whom are making this class of work a specialty. The manufacturer who is able to turn out cycles, motorcycles and voiturettes will be in a good position to profit from all the changes in public favor that are constantly taking place toward these light machines. If he confines himself to motorcycles, for instance, he may have a bad season when public taste is for voiturettes, and the voiturette specialists would get left when there was a run on cycles. The business should be made as expansive as possible, so that the maker will be ready for any emergency.

The motorcycles and voiturettes have put the pedal-driven bicycle under a cloud. It may be only temporary, perhaps, but while it lasts there is not much new business doing in bicycles. The makers themselves are responsible for this state of things. When

the bicycle began to decline they did nothing to stimulate interest in these machines, but accepted it as a sort of fatality, and went into the motorcycle business. They have done nothing to improve their machines, and the French bicycles exhibited at the show were a very poor lot, and they are still being offered at the old prices. It is a mistake to begin with, for when people can buy cheap motorcycles they will not pay the same figures they did in the past for bicycles unless they should show a big improvement in design and construction. There were very few French makers showing bicycles, and most of them had specimens of machines with free wheels and two-speed gears, and the fact that these were shown as novelties proves how backward makers are on this side.

The French have lost the trade, and they don't seem to care about making any effort to get it back again. They ought to see that, notwithstanding the pessimistic statements about the decline of the bicycle trade, the official statistics prove that the number of bicycles in use in this country is increasing rapidly every year, and if the French makers will persist in shutting their eyes to this fact they have only themselves to blame in losing the trade. There are splendid possibilities for doing a good business here if only manufacturers will look after the public requirements and supply a good machine at a reasonable price. The Americans are doing this, and their exhibits of bicycles were the best in the show. Felix Fournier had a fine lot of Dayton, Eagle and Luthy bicycles, and there was also a big stand of Canadian machines shown by the Canada Cycle and Motor Co. It is by keeping these bicycles before the public and making them known that Americans will succeed in doing a satisfactory business at the expense of the French makers.

Canadians Want Particulars.

The second move was made last week in the suit brought some little time ago by the Dunlop Tire Co., of England, against the stockholders of the Canadian Dunlop Co. was made at Toronto, Ont., last week.

The Master-in-Order was asked by the defendants to compel the plaintiffs to give particulars of the breach of contract alleged, which is the basis of a claim for \$250,000 damages made against E. B. Ryckman, George Cox, W. Y. Soper and Edward Gurney. Decision was reserved.

The plaintiffs sold out their rights on this continent to E. B. Ryckman on condition that he, or any company he might form, would not export tires to foreign countries. The Canadian company afterward sold its United States rights to the American company, and the English concern alleges that the latter is shipping large quantities of tires to Australia and South Africa.

In court last week John Greer, for the plaintiffs, stated that the Canada Cycle and Motor Co. was also transgressing, and that the Canadian Dunlop Tire Co. should take the stand that they would not sell that concern another tire until they agreed not to export. In no other way could the agreement be observed.

Cycle Trades Protective Association.

MEMBERS IN GOOD STANDING JAN. 12, 1901.

Iver Johnson Arms & Cycle Works, Waltham Mfg. Co., The Crosby Co., National Sewing Machine Co., Great Western Mfg. Co., H. P. Snyder Mfg. Co., Syracuse Arms Co., Julius Andrae & Sons Co., Huntington Mfg. Co., Hoffman Bicycle Co., Hendee Mfg. Co., March-Davis Cycle Mfg. Co., Wisconsin Wheel Works, Worcester Ferrule & Mfg. Co., Baldwin Cycle Chain Co., Rochester Cycle Mfg. Co., Bay State Stamping Co., Troxel Mfg. Co., Grant Tool Co., Peter Forg, Henley Bicycle Roller Skate Works, Ideal Plating Works, Milwaukee Cycle Co., Aurora Automatic Machinery Co., Toledo Metal Wheel Co., Fay & Bowen, Hunter Arms Co., Arcade File Works, The Butler Co., Springfield Drop Forging Co., Miami Cycle & Mfg. Co., Power Mfg. Co., Luthy & Co., Geo. E. Lloyd & Co.	Fitchburg, Mass. Waltham, Mass. Buffalo, N. Y. Belvidere, Ill. La Porte, Ind. Little Falls, N. Y. Syracuse, N. Y. Milwaukee, Wis. Huntington, Ind. Cleveland, O. Springfield, Mass. Chicago, Ill. Worcester, Mass. Worcester, Mass. Rochester, N. Y. Worcester, Mass. Elyria, O. Cleveland, O. Somerville, Mass. Richmond, Ind. Boston, Mass. Milwaukee, Wis. Aurora, Ill. Toledo, O. Auburn, N. Y. Syracuse, N. Y. Anderson, Ind. Butler, Ind. Springfield, Mass. Middletown, O. Bloomfield, N. J. Peoria, Ill. Chicago, Ill.
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Mud mixed with Sulphur
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High Grade Tires?

No. 66 Fisk just one-
half factory price, and
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Write for prices before
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BOSTON CYCLE AND SUNDRY CO.,

J. M. Linscott, Manager,

7 HANOVER ST.,

BOSTON, MASS.

CORRESPONDENCE.

To the Editor of the Bicycling World:

I notice in the Bicycling World of February 21 mention of the death in England of Thomas Sparrow, the oldtime bicycle man, who was so often credited with being the first to apply rubber tires to a bicycle. I knew Sparrow well, and have spent some few English pounds with him. I bought my first ordinary of him, and learned to ride it in his school, which was just off the Edgeware Road, while his shop or store was on the other side of the Edgeware Road, near Knightsbridge. His school ground was obtained by taking the gardens from several houses on two side streets; he also had a workshop there.

The ladies' bicycle he invented was never a success, owing to its being the same height as the ordinary, and the consequent difficulty of mounting it. His niece, however, used to ride it nearly every fine day, and could mount it as easily as we did the ordinary.

It does not appear to be generally known that Sparrow also made sewing machines which sold for £2. He used to say he could afford to sell them at the price, because he used parts that were too small for bicycles. I have often wondered why they were not more of a success, as the material was good. I bought one about the year 1883, and it is in use yet.

C. H. MINCHIN,
Greenwich, Conn.

To the Editor of the Bicycling World:

We have read with much interest the article "The Advertising of Motorcycles" published in your issue of the 21st inst.

In so far as they go the advertisements are about the best we have seen, but they do not tell one-fourth the story. "Push or be pushed," "Climbing hills and pushing against hills is too much like work," "You may laugh at the hills and at the head-

winds, too," would indicate that the sole foundation for the popularity of motorcycles lies in the fact that they will coast up hill and against headwinds.

The exhilaration of bubbling along buoyantly upon a little sprite, at will, flying fast enough for the most daring, or creeping slow enough for the most cautious, the steady and regular momentum, the wonderful ease of control, the enchantment of distance without muscular effort, the ever-changing view, the rush of keen air—begets new sensations of pleasure and excitement not possible from any other source.

The motor itself is an interesting study; it has a language of its own, soon interpreted by the thoughtful rider. It will cry and labor for more oil, it will snap and snarl if you foul its spark plug with too much oil, it will thunder at you, and finally refuse to work if you stuff it with too much gasoline or oil.

But when you have learned to feed and groom it properly, which can soon be done, it will bound merrily along, singing its song of joy in unmistakable language, up hill and down dale, like a thing of life, the very poetry of motion.

E. R. THOMAS,
Buffalo, N. Y.

When Reamers Get Dull.

Hand reamers, when dull through wear, should be stoned first on the face of the flutes, then on top of the flutes, says an authority on the subject. The stone should always be held perfectly flat with the face and clearance that the original shape of the flutes may be preserved.

End-cutting reamers should be first turned on centres with a wheel, and then recleared to insure reaming a hole the same size of reamer.

An emery stone is best for the purpose, as it gives quicker results than any oil stone. The stone should be kept clean by the use of turpentine.

**THE NEW DEPARTURE
COASTER BRAKE**

THE ANCIENT WITCH.

THE BEST
THE MODERN WITCH.

SELLING AGENTS
JOHN H. GRAHAM & CO.
NEW YORK CITY.

MANUFACTURED BY
THE NEW DEPARTURE BELL CO.
BRISTOL, CONN. U.S.A.

FREE WHEEL,
TIGHT PEDALS,
ANY SPROCKET,
ROLL BACKWARD.

WHEEL BUILDING

Many Details and Fine Points Involved— Spokes and Their Tensions.

"Only a Bicycle Wheel" was the title of a most instructive paper read before the Liverpool Cycle Trade Association by John Batey, a prominent spoke manufacturer of Birmingham, England. It deals with the subject in a manner that cannot well fail to interest.

Mr. Batey said it was always a difficult matter to attempt an analysis which might interfere with preconceived ideas. Much that he had to say was scarcely likely to meet with their prompt acceptance, but he was of opinion that when they had heard his views expounded, and had grasped his reasoning, they would readily accept his conclusions.

To the man in the street a cycle wheel was nothing more than one necessary part of the machine, but to them it was a complex structure. The tangent system of wheel construction was rightly considered to be of the best; it enabled them to use materials of light weight, but of great strength, in one direction. The cycle wheel of commerce was made true radially and laterally, and hitherto that had been deemed sufficient, but the advent of free-wheel devices, and the necessity for and the adoption of powerful brakes, had exposed faults in wheel construction which previously had escaped notice.

240 DETAILS INVOLVED.

What were their present methods of wheel building and their gauge for perfection? The wheel comprised rim, hub, spokes, nipples, holes, etc., representing 240 details in a forty-spoked wheel. The rim by itself was inherently weak, easily moved from side to side, and easily distorted from a true circle by a few pounds' pressure. That was not a fault—rather a virtue, when the conditions it had to fulfil when amalgamated into a wheel were borne in mind. The Westwood shape of rim seemed to fit in with the necessary qualifications for being retained as a true circle when supported from the hub by the spokes. As now made, a cycle wheel running true circularly and laterally might, and did, have a set of tensions varying from three to one to eight to one. Remembering the ductile character of the rim—and the rim must be ductile if the spokes had to hold it true—it was absolutely necessary that every hole in the rim should be drilled at a definite distance from the true centre line.

INFLUENCE OF RIDER'S WEIGHT.

Undoubtedly great care was used to attain that result, but a careful examination of an ordinary drilled rim would show that the holes varied in distance from the true centre line, and the result was untrue and unequally tensioned wheels. For example, take a 28-

inch wheel having thirty-two spokes, with tensions varying from forty to two hundred or fifty to two hundred. Without the rider's weight the wheel was true radially and laterally, and thirty-two spokes were acting to keep the wheel true. Under the weight of the rider only twenty-four spokes, or 75 per cent, were engaged in holding the wheel true as a circle, because eight spokes, or 25 per cent, had been relieved of a portion of their tension. That a wheel having spokes of various tensions must of necessity be a source of unequal vibrations was palpable to any one. Other conditions involved were more serious, as they directly influenced the strength of the wheel. In propelling a tangent wheel half the spokes were utilized in the drive. Assume those spokes, say, sixteen, to be arranged as chains on the barrel of a winch, all of equal length and all taking an equal share in supporting a weight of 16,000 pounds hung on their ends; shorten one of them and hang on the weight; one spoke or chain carried the whole of the weight, and fifteen none. The short one stretched or broke. That exactly described the conditions under which tangent spokes took up the resistance through the rim. The rim was the weight, the hub the barrel, the pedal the handle, and the spokes the chains. When pedalling the hub was revolved; resistance, which was tantamount to the weight, was set up by contact with the ground, due to the weight of the rider and machine. That retarding effort was overcome by the act of trying to wind the spokes onto the barrel or hub, and in that lay the great advantage of the tangent principle.

IMPACTS AND RESISTANCES.

A few moments' thought would show that the highest tension spoke took the whole drive of the pedal until it stretched or pulled in the rim; then the others took their share of the work, but they could not do so without deforming the circle of the wheel. Roughly speaking, the resulting blow from an impact with an obstacle such as a brick was not far off 1,200 pounds. A properly inflated tire might be credited with 600 pounds, leaving 600 pounds to be dealt with by the rim and spokes. That 600 pounds had to be resisted by 75 per cent of the spokes, added to the strength of the arched rim, between the 25 per cent limits in the lower part of the wheel. The 75 per cent zone of the wheel might be credited with being able to stand it, but the remaining 25 per cent required a more careful analysis. The wheel under consideration had thirty-two spokes, and, taking a fair average, they would vary in tension four to one—say, from 50 pounds to 200 pounds. Now, suppose the lowest tensions to be in the 25 per cent zone, viz., the eight spokes under the hub, the aggregate tensions of those equalled, say, 450 pounds, leaving 150 pounds to be resisted by the rim. The inward bending movement was repulsed by a fairly strong arched form, consequently the blow was diverted by the lateral movement of the unsupported part of the rim, producing what was popularly

known as "sideslip." Still another effect was produced, but in the 75 per cent zone (twenty-four spokes). One of the spokes had a tension of 200 pounds. At the moment of the impact that spoke was the one first affected—it received the full brunt of the blow, until it stretched or the rim was pulled in locally; then the other spokes lent their assistance in the order of their declining tensions.

MATTER OF TENSION.

Under such conditions the wheel was thrown out of truth, as one or more of its members or spokes had become permanently stretched. In riding, every spoke as it arrived at the vertical position under the hub lost a portion of its tension, and as the average variation of the spokes was four to one, but not in sequence, the product was a miniature switchback movement of a jerky and nerve-disturbing character. A still further product of inequality was found under a rim-brake test, in which the high and low tensioned spokes were found to be hard and soft places. A portion of a rim sustained by a spoke of 200 pounds tension must offer more resistance than another portion having a spoke of 50 pounds. That was another fault demonstrable as inherent to an unequally tensioned wheel.

POINTS OFTEN OVERLOOKED.

A number of points which apparently had hitherto escaped attention, while others had been unfairly valued, were the following:

That a rim could be too strong.

The ideality of the Westwood shape of rim.

That tensions in ordinary wheels could vary as much as eight to one, and average four to one.

That the position of the holes in a rim was of the utmost importance.

That the pneumatic tire did not correct faults of wheel construction.

That unequal tensions affected the truth of the wheel when pedalling, and when under the influence of a blow, and that they influenced sideslip, produced distortions and set up vibration.

That unequal tensions invited broken spokes, stretched spokes and uneven running.

That every spoke as it became vertical under the hub was lowered in tension.

That unequal tensions could not be considered advantageous to any wheel.

AN IDEAL WHEEL DESCRIBED.

An ideal wheel would have a rim of correct section; holes drilled at an exact distance from a true centre line on either side; spokes thoroughly ductile to pull straight under a minimum pull (head and screw to be of maximum strength); nipples should be thoroughly locked in position when the wheel was built, and remain so under ordinary conditions; every spoke should be tensioned to an equal amount to enable 25 per cent of them to withstand the shock of 600 pounds without any permanent distortion of the wheel; every spoke, as it assumed a vertical position under the hub, should

suffer a release of tension of an amount equal to every other one.

BUTTED VS. UNBUTTED SPOKES.

In describing to them how such a wheel could be built he would first consider the question of butted versus unbutted spokes. A butted spoke made from 15 gauge wire drawn down to 18 gauge had no real life beyond 150 pounds, though he had found tensions of 275 pounds in wheels of the best make. The average breaking strain of a butted spoke was 350 pounds, but at 150 pounds it stretched nearly a sixteenth of an inch. A plain spoke of 15 gauge made from wire specially manipulated by his (Mr. Batey's) machinery produced a spoke that would stand a breaking strain at the screw of practically 700 pounds, and that with scarcely any elongation, while the head would withstand a breaking strain of 600 pounds.

TENSILE AND TORSIONAL STRAINS.

That was exactly as it should be, because the screw was subjected to two sets of strains, viz., tensile and torsional, while the head was subjected to tensile and shearing. In the one case the torsional straining of the screw tended to thrust or pull the screw asunder. In the other the two were combined to resist the breaking of the bent part of the spoke by changing cantileverage into something nearly approximating tensile strain. Yet the wire from which such a spoke was made could be wound round the finger with ease. The rim when drilled was held rigidly as a true circle in a true plane relative to the true centre of a machine. In that position every hole was drilled at one and the same time, thereby attaining the first step toward perfection. Every hole was equidistant on either side of the true centre line of the rim, hence the first fault in wheel construction was removed, and the remedy attained to obtain an equally tensioned wheel. The rim must be made true by lying quite flat and its edges at right angles to the plane of its sides.

TENSIONING THE SPOKES.

Drilled and set as described, with spoke inserted, and nipples, etc., loosely joined together, the rim was then put into a machine which forced it into a true circle and plane

relative to a true centre, with its axis at right angles to the plane of the wheel. In that position the hub and rim were held as a true wheel, consequently the only attention needed was to give the spokes the correct tension. The correct method was to run up the nipples in one-quarter of the wheel to about 56 pounds, then tension up the opposite to the desired tension, say, about 98 pounds. Then deal with the third quarter, as the first, by straining up to 56 pounds, following with the fourth quarter, to 98 pounds. The result should be practically a true wheel, with spokes under equal tensions.

Experience, however, proved that to be impossible, unless some means were at hand to test the correctness of the tensions. His tension tester did that. It was unnecessary to test every spoke after the operator had gained some experience; an occasional test would keep him in touch with the necessary tension, and that was all that was required.

IMPORTANCE OF EQUAL TENSION.

The essence of the speaker's method was not to build a tangent wheel by machinery, but to adopt every possible means to correct error by instituting perfect conditions and building the wheel under them with the aid of machinery and testing instruments. By those means it was possible to systematize the whole of the operations, leaving nothing to chance and little to experience. His methods and machinery enabled an equally tensioned wheel to be made at a price comparable with the "true cost" of present production. To the maker an equally tensioned wheel was an advantage. Very often he was troubled by a wheel being thrown out of truth when putting on the tire; indeed, some went so far as to say that every wheel acted so. Whether that was the experience of any present that night he did not know, but he did know that if it was it should not be, and would not exist in connection with an equally tensioned wheel with any ordinary tire.

AGAINST TIED SPOKES.

In the discussion of the paper which followed its reading the chairman remarked that the question of butted versus unbutted spokes was a most important one; probably 40 per cent of those present used butted

spokes. That an unequally tensioned wheel should be more liable to sideslip than an equally tensioned wheel seemed indisputable. Mr. Evans found that wheels built with butted spokes were very liable to get out of truth. Mr. Lilwall said that the fitting on of the tires often had the effect of throwing wheels out of truth. Several questions were asked, all of which Mr. Batey answered. In answer to a question, "Should spokes be tied?" Mr. Batey replied, "Certainly not!"

As Seen by the Appraiser.

Under the latest ruling of Appraiser Wakeman, of the New York Custom House, automobiles and horse-drawn carriages as well as household effects. Bicycles, however, are not. That was settled by the Treasury Department some time ago, and the ruling still holds good.

But why one should be thus classified and the other held to be quite different is one of those things the average layman cannot understand. In nine cases out of ten the bicycle is kept in the house; yet it is not a household effect. But other vehicles, which never get near the house, come within this definition. Why this difference? Or is it that with the new ruling will come one admitting the bicycle to a place within the charmed circle?

Aces and Motocycles in Same Deck.

The terms "Motor," "Motorette" and "Motocycle" and the pictured representation of a motor bicycle have each been officially registered as a trademark by an up-to-date playing card manufacturer; the terms and picture appear, of course, on the reverse side of the aces, deuces, ten-spots and other cards that make up the respective decks.

Depth of German Despair.

The condition of the cycle trade in Germany is well illustrated by the following advertisement which recently appeared in a German paper: "Wanted, to buy a house. Condition, that the first instalment can be paid with a large number of cycles of best finish and latest construction."



To introduce the

NEW CRESCENT TIP FOR 1901,

we will sell
during the month of March only,

AT \$3.00 PER CROSS,

Cash with the order, f. o. b. Chattanooga.

Discount to the Trade on Large Orders.

CRESCENT NOVELTY MFG. CO.,

300 CARTER ST., CHATTANOOGA, TENN.

YOU REGULATE THE FLAME WITH A GAS VALVE IN THE COLUMBIA AUTOMATIC GAS LAMP.

For Bicycles, Buggies and Automobiles,
and the Water-feed takes care of itself.



LIGHTS AT ONCE.

Burns $\frac{1}{2}$ the carbide. Gives twice the light.

WATER FEED, automatic, *i. e.*, requires no regulator. Water flows proportional to flame set.

GAS VALVE regulates size of flame, high or low—only lamp in which you can regulate the flame in the manner.

Gas generated at low pressure thus avoiding all danger common to high-pressure lamps.

HINE-WATT MFG. CO.,
14-16 North Canal St., Chicago, Ill.

RETAILERS' CREDITS

How Over-anxiety to Make Sales Causes Laxness and Contributes Failure.

How important a part of a business the credit department is can be seen when one enters a factory, office or jobbing house to ask for credit, says a dealer who apparently "knows his book."

Are we not first taken to the credit man, who wishes to know your past and present standing? Before you can get credit you must satisfy this department of your being worthy of it, and upon the credit man being satisfied of your worth a limited credit is given. If you cannot thus satisfy the credit man, credit is refused; the merchant of to-day is not so anxious to sell goods that he will send them out if he feels that credit given will not be appreciated and the bills paid.

In order to meet your obligations you must also have a credit department. This department must consist solely of yourself. You, too, must look up the reputation of each one who asks for credit. You cannot be too careful in this matter. Don't be so anxious to sell goods on time that you will take every man's word as to his standing.

The successful merchant of to-day must be more than a mere fellow in the community. We have all noticed in scores of cases the difference in character and general makeup between the successful and unsuccessful merchant. The successful one is ever alert in all his doings, setting the type by which his business will be run in the future as to credit.

We are all optimists to an extent and in case of a bad credit try to make the best of it, hoping for better deals in the future. But to do as the fatalist, sit down and say it was meant to be so, is far from the successful path of a merchant's life.

Often we find merchants too anxious to sell goods and see them go through the front door. You will find them ever watching their competitor, and if he sells one or two more articles of a particular kind a resolve is made to catch up in number of sales. Then it is that the first man who comes in to buy is sold one regardless of cost price and of his standing. Often this first man is anything but a desirable customer. When payment time comes he finds the money is not forthcoming. He then endeavors to collect on the security given, and finds that it is no good, which he could have found out when he made the sale, but the resolve to catch up in amount of sales and do business was so great that the standing of the customer was forgotten.

At collection time he finds that selling goods so as to get paid for them is doing successful business and making money. Then again you can find merchants who are not satisfied without selling every one who comes in to buy, and at collection time they bump against a stump and discover that to sell

every one who comes in on credit is a fatal business policy.

When a customer comes in to buy, and the sale depends on a long credit and not on price given, such sales are unprofitable. To do so will injure your business and put you at a disadvantage, for will you not have to ask more credit of your jobber?

Every merchant should see that in extending a line of credit, whoever gets it will be in a position to fulfil his promise to pay, or otherwise get good security.

Don't get a lot of long-price notes, with a long extension of time for payment, in your safe, upon which nothing can be realized. If more merchants knew what an error it is to try to do all the business of their respective towns, fewer old notes and accounts would grace their assets.

All merchants should look upon their business with as much pride as they do upon their own family, whose reputation they wish to remain a standard. But this cannot be done by selling to any and every one who asks credit. Learn to say no to a credit seeker, the same as you would to your child, when he asks to associate with one whom you know will hurt your child's future. The success of a business depends largely upon your ability to say no, and placing your goods in the hands of people that you know will pay for what they get.

The greatest success is business success, and to succeed one must not abuse credits given by allowing the goods so gotten to go out without having the standing of a customer. The all-important factor in successful business is to know to whom to extend credit, and this depends upon the many sales, which keep turning the stock, with customers who have the ability and honesty to pay for what is sold them.

The trouble with most merchants who fail lies in their inability to distinguish between the wisdom of making sure of the payment of an account and the folly of obtaining abnormally large profits on a long-time sale. The thing to have in a business is something like what English bankers term "liquid assets," which, though returning small profits on short-time sales, insure the payment of the account with the profit as well.

When I started in business, concludes this dealer, I was told of the many failures in my line of trade. I took pains to see what caused the failures, and, to my satisfaction, found it was not from the lack of business, but from doing too much.

Low Rates to the South.

Excursion tickets at reduced rates are now being sold by the Chicago, Milwaukee & St. Paul Railway to the prominent resorts in the South, including Jacksonville, Fla., Mobile, Ala., New Orleans, La., Savannah, Ga., El Paso, Tex., which are good for return passage at any time prior to June 1st, 1901. Information regarding rates, routes, time, etc., can be obtained on application to any coupon ticket agent of the Chicago, Milwaukee & St. Paul Railway. ***

DUNLOP'S INGENUITY

Famous Inventor Turns to the Gas Engine and Some Simplification Results.

Having apparently exhausted the inventive possibilities of the ordinary bicycle, J. B. Dunlop, the father of the pneumatic tire and inventor of a spring fork and self-adjusting bearings of unusual merit, has turned his attention to the motor vehicle.

With that clear-sightedness which has always been one of his distinguishing traits, the veteran inventor has placed his finger on the method of carburetting as the part of the gasoline motor most urgently in need of reform and bent his efforts in the direction of bringing it about. In the current issue of the Motor News Dunlop's fellow countryman, McCreedy, gives the result of his work in this direction.

"In the first place, he has very much modified the 1900 pattern spray carburetter. He has closed one of the air inlets, and has made it self-regulating, so that at all speeds and at all degrees of throttling the quality of the mixture is correct and requires no attention. We are aware that this is claimed for the existing De Dion carburetter, but, although theoretically it may be self-regulating, in practice we have found that it is not so, for if the carburation lever is turned wholly to the right, which should give the maximum degree of power, the engine will stop, due, no doubt, to the fact that under these conditions the quality of the mixture is hopelessly at fault.

"Mr. Dunlop has also stopped the little hole at the bottom of the carburetter intended as a means of exit for the petrol, which, especially in cold weather, is not atomized, and consequently goes to waste. It now finds its way into the hot-air pipe and is vaporized by the hot air rushing in.

"Mr. Dunlop contends that much of the difficulty in starting is caused by imperfect carburation, and the results obtained by his improved carburetter would seem to justify this opinion. Whereas he had considerable trouble in starting before, the vehicle now starts at the first turn of the handle, which he operates from the seat. Also, he is enabled to start with the sparking lever put as far back as it can go, thus getting over the risk of a back explosion.

"In the case of our own De Dion we always found it necessary to start the vehicle with the lever a little advanced, and the moment an explosion was produced to advance it still further, or the engine would stop again. Mr. Dunlop seems to have got over the necessity for this. We saw his son start from the seat at the second attempt, and he only pulled the handle up for half a turn. The advantages of such ease in starting are manifest. When difficulty is experienced one naturally does not like to stop the engine, with the result that it is often left running when the vehicle is stationary in the street, and also it is rarely if ever stopped for restive horses. The noise under such circumstances is particularly objectionable.

The Week's Patents.

668,706. Cylinder with Liquid Packing for Explosion or Internal-Combustion Engines. Ludwig Bayer, Munich, Germany. Filed Feb. 23, 1900. Serial No. 6,261. (No model.)

Claim.—In explosion or internal-combustion motors the combination of a vertical cylinder, having a chamber communicating with it at a point above the piston at the highest point of its stroke, a piston therein having an upward extension of smaller diameter than the cylinder and greater in length than the piston stroke, a liquid packing surrounding the extension of the piston and adapted to enter said chamber, a valve for closing the upper part of said chamber, and means for opening the said valve during the suction stroke and at the end of the compression and exhaust strokes in order to give a receding tendency to the liquid packing about the piston extension sufficient to neutralize the upward momentum given to the liquid during the compression and exhaust strokes.

668,773. Vaporizer for Explosive Engines. Rasmus P. Hansen, Erindslev Sogn Rodby, Denmark. Filed May 23, 1900. Serial No. 17,719. (No model.)

Claim.—A vaporizer for petroleum motors, consisting of the chamber formed in the head or cover thereof, a partition dividing the chamber into two parts, of which the lower communicates by an open port with the combustion chamber, and the upper communicates with the air and with the inlet valve, a petroleum-feed channel in the partition, a spreading projection on the under side of the cap of the upper chamber and a delivery aperture for the petroleum below said projection.

668,784. Bicycle. Charles L. Travis, Minneapolis, Minn., assignor to the Hygienic Wheel Co., Philadelphia, Pa. Filed Mar. 19, 1897. Serial No. 628,337. (No model.)

Claim.—In combination with the front section of a bicycle frame, provided with a split hanger or shell, a barrel provided with shaft bearings and rotably mounted within the hanger or shell, a rear-frame section or fork carried by said barrel, and means for contracting the split hanger or shell, substantially as set forth.

669,049. Rubber Tire for Bicycles. William H. St. John and Omer W. Wait, Brooklyn, N. Y., said Wait assignor to said St.

John. Filed July 7, 1900. Serial No. 22,828. (No model.)

Claim.—In an elastic tire the combination of the outer portion, the flat ring part having the tongue, the cushions connecting the tire portion and ring at intervals, the rim having a groove adapted to admit the tongue, the said tire portion with ring part and cushions being formed together of the same elastic material, making an integral annular piece, the said rim being constructed of wood, thereby permitting ring part to be cemented upon it, the said rim and ring part being of the same width throughout, as described.

668,733. Pneumatic Tire. Phares S. Griffiths, Grand Rapids, Mich., assignor of one-half to Rose Bachman, same place. Filed June 1, 1900. Serial No. 18,778. (No model.)

Claim.—As a new article of manufacture, a tire consisting of a pneumatic tire, compressed cornstalk pith and prepared fabric in an airtight space within the tire and adjacent the thread thereof, substantially as and for the purpose set forth.

668,772. Bevel-Gear Cutting Machine. Theodore Coventry, Manchester, England, assignor to Smith & Coventry, Ltd., Salford, Manchester, England. Filed Feb. 8, 1900. Serial No. 4,523. (No model.)

Claim.—In a gear-cutting machine, a parallel motion, a former arm connected to a member thereof, a tool reciprocable on the former arm, a work carriage organized to feed work to the tool and proportionately move the former arm, substantially as set forth.

668,873. Bicycle. Arthur S. Dickinson, Atlanta, Ga. Filed Sept. 14, 1898. Serial No. 690,930. (No model.)

Claim.—In a bicycle, in combination, the crank-shaft hanger, provided with the rearwardly extended journal lug and the casing supported at one end of the said hanger; the rear-wheel fork members, one thereof provided with the outwardly extended support lugs, having the ball bearings; the rear wheel having the hub thereof secured to the axle therefor, which is rotatable in bearings therefor at the rear end of the frame; the shaft mounted for rotation in the said journal lug and said casing, parallel with crank shaft; the gear wheel on the crank shaft and the gear wheel on said shaft, both inclosed by said casing; the shaft extending forwardly

and rearwardly and mounted in the said support lugs; and the universal joints connecting the shaft with the angularly arranged axle and shaft, each consisting of yoke members pivoted to the adjacent ends of the said angularly arranged parts on lines at right angles to each other, and the single bar having the end portions thereof pivoted to the yokes on lines at right angles, the four lines of pivotal connections being alternately at right angles to the next, substantially as described.

The Week's Exports.

For the week ending February 26 Russia was most prominent as a buyer of American cycle stuff, although the week was one of generally satisfactory shipments, as the following detailed record shows:

Amsterdam—13 cases bicycle material, \$160. Abo—4 cases bicycle material, \$84.

British Australia—52 cases bicycles and material, \$2,258.

Bale—2 cases bicycles, \$50.

Brussels—17 cases bicycles, \$373.

British Possessions in Africa—13 cases bicycles and parts, \$1,769.

Bremen—13 cases bicycle material, \$590.

British West Indies—31 cases bicycles and material, \$831.

Cuba—7 cases bicycles and material, \$158.

Christiania—3 cases bicycles, \$75.

Chili—1 case bicycles, \$25.

Copenhagen—3 cases bicycles, \$220.

Ecuador—1 case bicycles, \$20.

Gothenburg—1 case bicycles, \$50.

Genoa—29 cases bicycle material, \$868.

Glasgow—1 case bicycles, \$30.

Ghent—8 cases bicycles and material, \$215.

Hayre—30 cases bicycles, \$859; 16 cases bicycle material, \$777.

Hamburg—15 cases bicycles, \$405; 84 cases bicycle material, \$1,961.

London—2 cases bicycles, \$25; 38 cases bicycle material, \$1,082.

Liverpool—10 cases bicycle material, \$1,325.

Moscow—1 case bicycle material, \$10.

Milan—31 cases bicycles, \$775.

Rotterdam—8 cases bicycles, \$433; 29 cases bicycle material, \$1,626.

Stockholm—1 case bicycle material, \$35.

Southampton—10 cases bicycles and material, \$1,655.

St. Petersburg—310 cases bicycles, \$9,585.

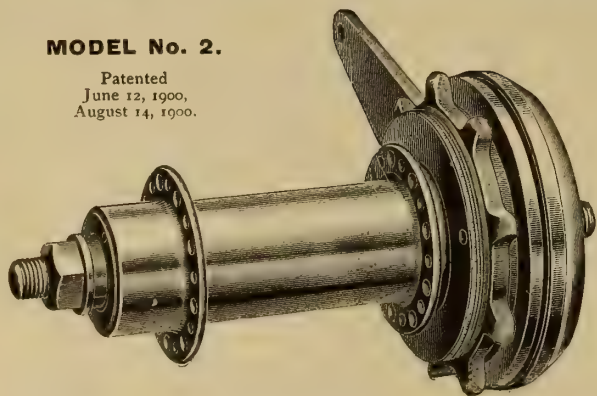
Santo Domingo—3 cases bicycles and material, \$39.

Skien—4 cases bicycles, \$110.

"E Z" COASTER BRAKE.

MODEL No. 2.

Patented
June 12, 1900,
August 14, 1900.



SIMPLICITY.

LESS PARTS THAN ANY OTHER COASTER MADE.

With the "E Z" COASTER BRAKE fitted to your wheel all fear at once leaves the most nervous person, for you are in position to stop the wheel immediately—and always have it under control.

Your 1901 wheel should be fitted with the "E Z."

Any dealer can furnish it.

Send for Catalog "C."

Sole Manufacturers, REED & CURTIS MACHINE SCREW CO., Worcester, Mass.

**MAKE NO IDLE PURCHASES
—AVOID THE ERRORS
OF THE PAST.**

Will Stinson holds a world's championship that other champions cannot achieve—the hour record.

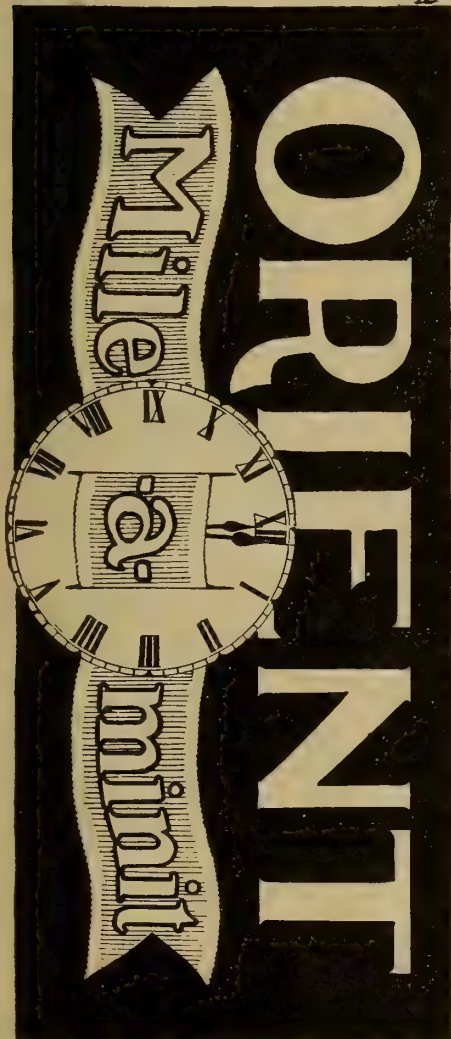
The dealer who is fortunate enough to represent the Orient Bicycle holds a line that is beyond comparison—competition, even.

The Leader, with its victories at the trackside.

The Tailored Bicycle, the only one of its kind.

The Orient Milaminit, the triumph of the new century.

This machine is the pride of its makers—a light weight that is so thoroughly harmonious in construction, so graceful in design, so generously good throughout, as to leave no loophole open for expert criticism.



Reasons in detail for the asking.

WALTHAM MFG. CO..

WALTHAM, MASS.

YOU

DON'T

need to

TALK

in order to

SELL

CUSHION FRAME

BICYCLES.

Simply put a
PROSPECTIVE CUSTOMER
on a

TRIAL WHEEL

with instructions to

RIDE IT 30 MINUTES,

and the

CUSHION FRAME

WILL DO THE REST.

Get your **CUSHION FRAME**
ORDERS in **EARLY**
to your manufacturer.

HYGIENIC WHEEL CO.,

220 Broadway, New York.

Owners of the Cushion Frame Patents.

Elfin
Bicycles

**Juvenile
Buyers are
Convinced
in a Jiffy.**

Takes just 5 minutes of
your time to convince
your customer that the

**Elfin
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is the Juvenile he wants.
No need to explain its fine
construction and finish—
he can see that at a glance.

2 minutes time suffice
to show him the advantage
of having a Juvenile
with the Reversible Crank
Bracket—such a Wheel
will fit his growing child
longer and last him longer
than any other.

2 minutes will serve to
explain the Easy Chain
Adjustment—easy for the
child to adjust and no
chance for the child to
injure the wheel when
out of adjustment.

1 minute to close the
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Elfins are the Standard
of the World in Juveniles.
Our agent will show you
a complete line. Catalog
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**Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.**

**OUR
CRANK
HANGER
DOES
IT.**

**The
Racycle**

**DOES
WHAT ?
MAKES
IT RUN
EASY.**



**THERE'S REAL COMFORT
IN THE REEVES**

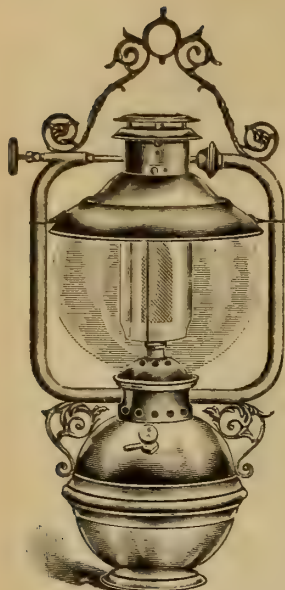
Ideal Spring Seat Post.

It relieves all jolts and jars, and converts any
Bicycle, new or old, into a Cushion Frame. Fits
any wheel. Sent prepaid to any address on
receipt of \$1.75. Money back after three days'
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D. E. ORVIS & CO., 71 E. Genesee St. Buffalo, N. Y.

Reference, Buffalo Commercial Bank

Dealers send for Circular and Wholesale Price List.



Outdoor.

THE NULITE

750 CANDLE POWER

ARC ILLUMINATORS

Produce the finest artificial light in the world.
 SUPERIOR TO ELECTRICITY OR GAS
 CHEAPER THAN KEROSENE OIL

A 20th Century Revolution in the Art of Lighting.

They darkness into daylight turn,
 And air instead of money burn.

No Smoke. No Odor. No Noise. Absolutely Safe.

They are portable. Hang them anywhere.

WE ALSO MANUFACTURE

TABLE LAMPS, PENDANTS, WALL LAMPS,
 CHANDELIERS, STREET LAMPS, ETC.

The BEST and only successful

Incandescent Vapor Gas Lamps

made. They sell at sight. Nothing like them

A SNAP FOR BICYCLE DEALERS.

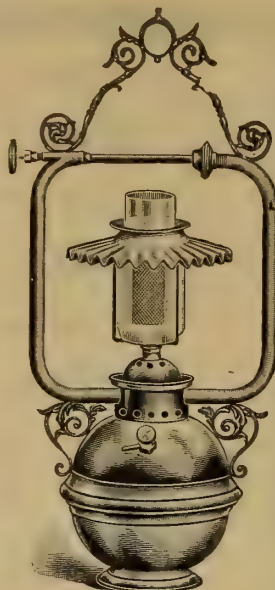
Agents wanted everywhere.

Write for catalogue and prices.

CHICAGO SOLAR LIGHT CO.,

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Indoor.

Don't you believe it!—There is no tool as good as **The Magic**, for we manufacture nothing else; therefore, we spend our time and give our



THE MAGIC

A COMPLETE REPAIR TOOL FOR ALL
 SINGLE TUBE TIRES.

HAS A POINT ONLY $\frac{1}{16}$ IN. DIAMETER.

attention solely to the improvement of it, thereby easily keeping ahead of everything else in that line on the market. Try it and convince yourself of it's being the best repair tool for single tube tires that you ever saw or tried. Your jobber carries them. If not, write us. **THE MAGIC REPAIR TUBE CO.**, 250 Larrabee St., Chicago.

All American wheelmen who desire to keep themselves posted upon matters concerning the cycle in Europe, its trade, mechanics, and sport, should subscribe to

THE CYCLIST

AND BICYCLING AND TRICYCLING TRADES REVIEW.

The only recognized authority of English trade and manufacture. Sent post free to any part of America for one year, \$3.25. American manufacturers having novelties in machines or sundries to introduce should advertise in

THE CYCLIST.

Terms on application to

ILIFFE SONS & STURMEY, Ltd.,
 19 Hertford Street, Coventry, England.

Members of the American Trade visiting England are invited to call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street, Ludgate Circus, London, E. C.

IDEAL ADJUSTABLE BARS AND SADDLE POST.

Made of the best material, and finished and plated in the best possible manner.

Get our prices for 1901.

IDEAL PLATING CO., 3 Appleton St., Boston, Mass.

L. R. HALL

Enameling and Nickeling Co.

ENAMELING, NICKEL-PLATING

and VULCANIZING for the trade.

Carriage Tires
 Our Specialty.

4 PORTLAND STREET
 BOSTON.

HIGH GRADE

wheels must have the
 best equipments.

There is nothing that gives more value for
 the money than the use of the

MORSE TWIN ROLLER CHAIN



NOISELESS IN MUD, WATER OR
 DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless
 Rocker Joints. Insist on having the
 Morse Twin Roller. Fits regular
 sprockets.

Send for Catalogue and
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Morse Chain Co., Trumansburg, N. Y.

DON'T EXPERIMENT!



Use the
 well-known

"Fleming" Motor

on your Motorcycle.

Fleming Motor Vehicle Co.,

93-97 Elizabeth St., New York, U. S. A.

20th Century OIL and GAS
 Bicycle, Driving and Automobile
 HEAD-LIGHTS.

For sale by all jobbers and dealers.
 20th Century brand of Carbide.

WANTS AND FOR SALE.

15 cents per line of seven words.

WANTED. Salesmen visiting bicycle and sundry trade to take well known brand of bicycle tires on liberal commission. Address H. D. P. O. Box No. 2349, New York City.

Chicago and Cincinnati.

The Monon Route and C. H. & D. R'y run four trains daily from Chicago to Cincinnati. The day trains leave Dearborn Station, Chicago, at 8:30 A. M. and 11:45 A. M., and are equipped with elegant Parlor and Dining cars. The Night trains leave at 8:30 P. M. and 2:45 A. M. These trains are equipped with elegant sleepers and compartment cars, the sleepers on the latter train being ready for occupancy at 9:30 P. M. City Ticket Office, 232 S. Clark St., Chicago. ***

HAND AND FOOT PUMPS,

Oilers, Repair Tools,
 Valves, Name-plates, etc.

Spelter Solder

Sheet Brass,
 Brass Wire and Rods.

SPECIALTIES to order
 MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn.

Depots: 210 Lake St., Chicago.

423 Broome St., New York.

PATEE MOTOR CYCLES, \$200.



count. WRITE US.

PATEE BICYCLE CO., Indianapolis, Ind., U. S. A.

No other make of Motor Cycle can maintain a speed anywhere near equal to this wonderful machine. It is light, strong, serviceable and reliable. Will go every time, any time and all the time. No experiment, no plaything, fully guaranteed. Money refunded if not as described. Big trade dis-

WOLFF-AMERICAN BICYCLES.

STEARN'S BICYCLE AGENCY, - Syracuse, N. Y.



THE NEW "AUTO" BICYCLE PUMP.

Patented Oct. 9th, 1900. The barrel is 15 inches long and 1 inch in diameter. Will inflate the heaviest automobile tire. Provided with our patented air tight swivel. Has solid base and will stand alone. The finest and strongest pump made. Sample sent on approval. Electrotypes for catalogues furnished free. Handled by all jobbers. Mention this paper.

D. B. SMITH & CO., Utica, N. Y., U. S. A.

Liquid Brazing is Best.

Referring to the subject of liquid brazing, which has come into such general use in the cycle trade, an English writer says that many classes of work are really done best by liquid brazing, in which the brass is maintained in the molten state in a crucible, either by means of converging blowpipe flames or a type of reverberatory furnace, and this process deserves to become more popular for all "end" work, such as liners, stay rod and fork ends; it is quick, sure and clean; burning is impossible, and there is no scaling, because there is no oxidization.

The drawback, however, appears to be the perishable nature of the plumbago crucibles, as they will rarely stand more than two heats, and the system is not adapted for odd jobs, but for long, continuous lots of work, though for some work the plumbago crucible may be dispensed with; and the writer has seen ordinary firebrick, with a hollow scooped out, give excellent results.

Such a furnace is cheaply and easily constructed with a few firebrick and iron gas piping for the blowpipes, the flames being projected downward at an angle from the sides, and meeting on the surface and in the centre of the bath of spelter, oxidization of the liquid mass being prevented by strewing a few lumps of sal ammoniac on the surface, and a few bits of zinc may occasionally be added to replace that which is dissipated by the heat. Liquid brazing, however, requires a high-pressure fan, constant blast and nice regulation.

No Brakes but Coaster-brakes.

Hand-operated brakes appear to be almost extinct, judging from last week's show. This, coupled with the fact that a very large proportion of the coming season's machine will be equipped with coaster-brakes, speaks volumes for the efficiency of the latter. Accidents occurring through their failure to work properly when it is desired to check the speed of the machine are almost unknown; and the complete reliance upon them, due to the absence of any other brake, renders it certain that serious consequences, and subsequent publicity, would result should they fail.

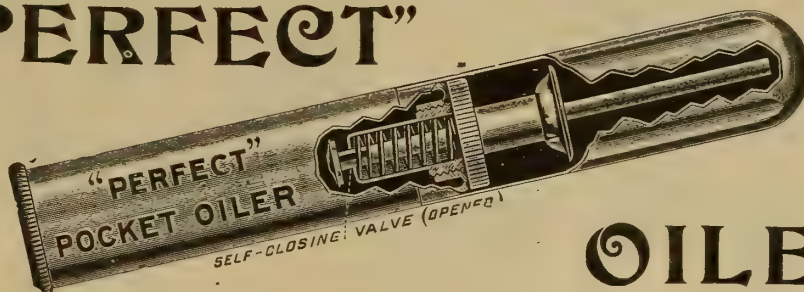
Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serv-

ing famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ...

The Williams Vulcanizing Works, 528 South Broadway, Los Angeles, Cal., have put in a new steam vulcanizing press, and are prepared to do cycle and automobile tire work of all kinds.

"PERFECT"

25c.

OILER.

Used by leading makers of high-grade bicycles. The only oiler that regulates supply of oil. CANNOT LEAK. We make cheaper oilers also, of unequalled quality.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.

MORROW
 COASTER AND BRAKE.

Over 100,000 Sold
Last Year.

Everyone Giving Satisfactory
Service.

Make Your Cycle Saleable and
Desirable by Fitting it with
the MORROW.

ECLIPSE MFG. CO., ELMIRA, N. Y.

NEW YORK BRANCH:
105-107 Chambers Street.

If
You are Interested
in Automobiles,

THE MOTOR WORLD

Will Interest You.

IT'S NOT LIKE THE OTHER KIND.

It's readable,
and you can understand what you read.

Published Every Thursday
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and you will run a
FINE-TOOTHED COMB

through the trade and not find better values at any price. Try us.

Free! Free! to Anyone:

Send business cards or letter heads of three bicycle dealers or repairers who have not received our 1901 Catalogue and we will mail you one of these Bicycle Wall Holders. Folds up against the wall when not in use. Five names, two holders. Ten names, five holders. Include 2c. postage stamp for each holder.

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Dealers or Repair-
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plies.

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Patentees, Manufacturers Wholesalers.



NEVERLEAK

STOPS LARGE PUNCTURES.

This is the only fluid that can be legally used in pneumatic tires. Suits now pending

BUFFALO SPECIALTY MFG. CO.,
Buffalo, N. Y.**THE LAKE SHORE ROUTE**

BETWEEN

Chicago and Milwaukee.

Frequent fast express trains at convenient hours.

All agents sell tickets via this popular route.

CHICAGO & NORTHWESTERN R. R.

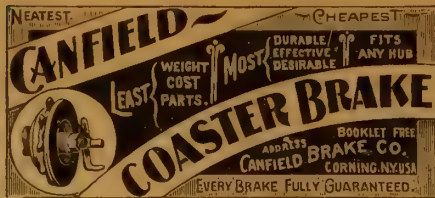
TICKET OFFICES:

368 Washington St., Boston.
461 Broadway, New York City.
193 Clark St., Chicago.The Best Advertising for the
Irish Trade is**THE
IRISH CYCLIST**Specimen copy and advertising rates on
application rates toR. J. MECREDY & SON, Ltd., Proprietors,
49 Middle Abbey St., DUBLIN.**The Thorndike**

Boylston St. and Park Square,

On the border of the most famous
Public Garden in America. **BOSTON.**

G. A. DAMON. J. L. DAMON. J. L. DAMON, Jr.

Through Train and Car Service in
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	"Chicago" Special Via Lake Shore.	"North Shore" Special Via Mich. Cen.
Lv. Boston	10.45 A.M.	2.00 P.M.
Due Albany	4.10 P.M.	7.35 "
" Syracuse	7.55 "	11.40 "
" Rochester	9.40 "	1.30 "
" Buffalo	11.40 "	
" Toledo	5.55 A.M.	
" Detroit		8.15 "
" Chicago	11.50 "	4.00 P.M.

The Finest Pullman Cars will be run on these trains.
Tickets and accommodations in sleeping cars for sale at City
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A. S. HANSON, General Passenger Agent.

GOOD WORK GUARANTEED.**D. PATTINSON,**
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OF ALL KINDS ON
BICYCLES AND AUTOMOBILES.
(Official L. A. W. Repair Shop.)**PATENTS GUARANTEED**Our fee returned if we
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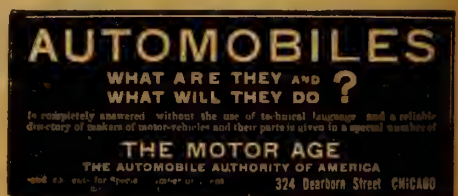
Many have made fortunes from simple inventions

Sheet Steel Bicycle Parts.All Kinds of Metal
Stamping**THE CROSBY COMPANY, Buffalo, N.Y.**Via Rockford, Freeport, Dubuque, Independence,
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TO OMAHA**Buffet-library-smoking cars, sleeping cars,
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Tickets of agents of I. C. R. R. and connecting
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FAST TRAIN SERVICE**

BETWEEN

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Through trains.For tickets and information apply at any
principal ticket office of the company.**D. J. FLANDERS, Gen'l Pass. & Ticket Agt.**
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G & J TIRES

Detachable—Double Tube

Made from the best materials; constructed on correct mechanical principles; so simple to handle that any novice can easily make a roadside repair. They satisfy the rider—and satisfied customers make a satisfactory business.



G & J TIRE CO., Indianapolis, Ind.

STANDARD SPOKE AND NIPPLE CO.

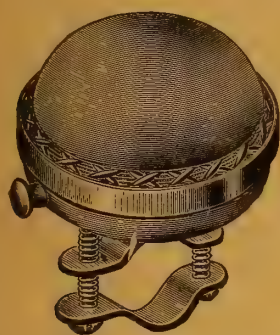
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SPOKES AND NIPPLES

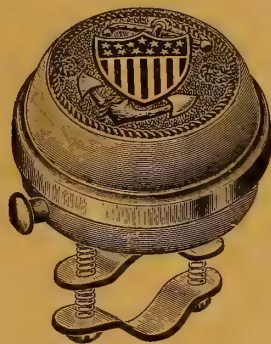
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STERLING BELLS.



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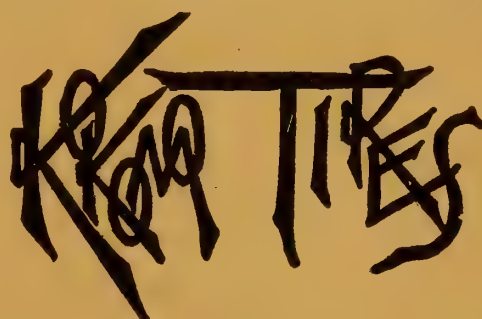
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MAKERS OF

SHEET STEEL BICYCLE PARTS

and Cases for Carriage and Automobile Hubs.



K-O-K-O to be on the go, get your tires from Kokomo. Made and sold by

KOKOMO RUBBER CO., Kokomo, Ind.

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The "Arc Light"

1901 MODEL NOW READY.

A LAMP THAT GAVE PERFECT
SATISFACTION IN 1900.

It has STYLE, FINISH and PRICE.

The dealers are not stocked with a lot of our last season lamps. Therefore no chopping and cutting of price to unload old stock. You can maintain your price and sell this lamp at a profit during the season of 1901.

Wood cuts and samples ready.

MADE BY

THE MILLER MANUFACTURING CO., TORRINGTON, CONN.

Here's a Winner.



We have just been allowed a strong patent on the only Inner Tube made with reinforced ends that positively will not blow out at those points.

Write for full particulars and prices.

PENNSYLVANIA RUBBER COMPANY,
ERIE, PENN.

Bicycle, Carriage, Automobile Tires and Accessories. Mechanical Goods

JOBBER'S AND THE STEEL RIM

From THE BICYCLING WORLD, January 3, 1901.

X WASHINGTON D C While steel rims are still fitted to not a few American bicycles designed for the sight of a wheel so fitted for use at home is so rare as to excite has not generally supposed; the fact that such a demand does exist and may be enlarged by a little cultivation was brought home to us this week.

Two jobbers, one of them from the Far West, both agreed that this enlargement of trade is easily possible. One of them, led to try the experiment by reports of troubles with wood rims, ordered a stock of fifty pairs of the steel article. All were sold within ten days. The experiment was tried late in the year, and the result was so satisfactory that the jobber in question means to make a more serious effort in the same line next season.

The fact may "suggest things" to other jobbers; indeed, with the increasing experiment and use of motorcycles, on which steel rims are in general use, the average jobber may well give a thought to the steel felly.

THE ADVICE IS WORTH HEEDING

and when it comes to

Steel Rims for Bicycles or Motorcycles

or Automobiles

there's nothing half so good as

**Our Crescent Rims
made of "Swedoh" Spring Steel.**

We'll be pleased to submit figures.

Of course you know all about our

"Brass-Lined, Anti-Rust, Safety Tubing."

If not, we are ready to supply information and demonstrate its superiority.

THE WILMOT & RUBBINS CO., Main Office and Works, Bridgeport, Conn., U.S.A.

U S Patent Office
Dept of Interior
Business Established 1877.
Incorporated 1884.

New York Office, 258 Broadway.

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., March 14, 1901.

No. 24

WORLD'S EXPORTS

Decreased Three Millions During 1900— United States by far Greatest Loser.

For the first time, figures are available showing the real extent of the world's exportation of bicycles and cycle stuff.

The United States, Great Britain, Germany and France are the four countries that share the business, and the Bicycling World's compilation shows what was already known—that the United States is still in first place, but by a much reduced margin. It leads Great Britain by a scant \$300,000 and disgruntled Germany by but \$340,000.

At the close of 1899 our lead was much more comfortable. Then England was \$1,500,000 to the bad and Germany \$400,000 further behind. France, while doing a snug foreign trade, was never a dangerous competitor, and, despite a considerable export of motorcycles, in addition to the pedal-propelled machines, fell further away during 1900.

Canada asserted itself during 1900, and at the expense of the United States entered the lists as an exporter of cycles; but it is reasonably safe to say that its trade did not touch the \$250,000 mark. The Canadian totals are not available, but for all practical purposes the world's export trade for the year 1900 may be written at \$10,122,231, a decrease of \$2,987,198 from the previous twelve months.

The business was distributed as follows:

	1900.	1899.	1898.
United States.....	\$3,661,661	\$4,820,284	\$7,092,197
Great Britain.....	2,755,845	3,330,940	4,804,695
Germany	2,721,500	2,927,500	3,159,250
France	1,583,825	2,030,705	—
Totals	\$10,122,231	\$13,109,429	—

Winding up March-Davis Affairs.

The bid of Arnold Schwinn & Co. for the factory of the defunct March-Davis Cycle Co., Chicago, reported in last week's Bicycling World, was accepted and the first mentioned firm is preparing to remove from its present location and take possession.

It is now reasonably certain that the March-Davis creditors will receive about 40 per cent of their claims.

Judge Stopped the Sale.

At Springfield, Mass., last week, Judge Bond was called on to untangle the affairs of the Industrial Cycle Co., of that city, which are in bad shape.

Equity proceedings were brought by David T. Methven and Alexander Methven against David A. Reed, John McFethries and Robert Goodale, and an injunction has been issued restraining the defendants from a sale of the property owned by the plaintiffs, and also preventing the defendants from transferring a note and mortgage held by them to any persons until ordered by the Court.

The plaintiffs represent that prior to November 29, 1898, they were engaged with David A. Reed in the manufacture of bicycles, the firm being known as the Industrial Cycle Co.; that on November 29, 1898, the partnership was dissolved and Reed agreed to pay all the commercial debts of the firm, for which he received \$43,000. The debts amounted to about \$15,000.

On the date mentioned, according to the representations of the plaintiffs, Reed took back from the plaintiffs his interest in the company, for which he received a mortgage of \$5,000; that he represented that he would use the note only as commercial paper, but that instead he assigned it to John McFethries, who in turn assigned it to Robert Goodale, counsel for Reed.

Foreclosure proceedings for non-payment of the note were instituted later, and a sale of the property involved was to have been held on March 8. It was to prevent this sale that equity proceedings were instituted.

Now a Union Factory.

After four years of conflict, the dispute between the Pope Manufacturing Company and the labor unions has been settled by the recognition by the former concern of the local Metal Polishers and Buffers' Union and the unionizing of these departments.

Wilson Goes West.

The Pacific Coast appears to hold attractions these days for the tire manufacturers. J. C. Wilson, of the Hartford Rubber Works Co., is the most recent to undertake the long journey on business intent.

LAWYERS FORGOT!

Failed to Appear, and a Tire Suit Awaited with Interest is Adjourned.

What bore promise of proving a celebrated case has had a deal of the promise taken out of it.

The case, the suit of the Single Tube Tire Co. vs. the Hartford Rubber Works Co. for violation of the Tillinghast license, was set for hearing on Thursday last, but, though the judge and the other court officials were ready, there was no one to listen to.

The lawyers for both sides failed to appear, and the court, of course, adjourned.

The hearing at which the plea for an injunction was to be argued was to have occurred in the United States Circuit Court at New Haven on Thursday last, and it was supposed that some family linen would be aired, and, though Judge Townsend was present at the time set, and though Clerk Carroll journeyed from Hartford to attend to his duties, the latter expressed no great surprise at the non-appearance of counsel.

"It frequently happens," he said in reply to the Bicycling World man's inquiry.

When one of those concerned in the suit was approached and questioned he looked the reporter squarely in the eye, and without a change of his usual tone responded:

"Why, the lawyers must have forgotten all about it!"

The reporter did not smile; nor did the other man.

To Work on Commission Basis.

The Manufacturers' Trading Company has been organized in Memphis, Tenn., by Jerome P. Parker, who figures as its manager. Bicycles and sundries and automobiles and fittings will be handled in addition to hardware and specialties.

Mr. Parker was previously in the cycle jobbing trade and therefore "knows his book." Under the new arrangement, he purposes acting purely as manufacturers' agent, selling on a commission basis. He will keep from three to five men on the road, and believes that savings in cost and inconvenience of travelling in the South should appeal to the manufacturing trade.

SHELBY SHIFTS THINGS

Re-elects old Officers but Removes Main Office to New York and Enlarges Scope.

At the annual meeting of the Shelby Steel Tube Co., held in this city on Thursday last, the present officials were re-elected, viz.: C. T. Boynton, president; W. E. Miller, chairman of the Board of Directors; W. S. Miller, treasurer.

The meeting was protracted and really marked the inauguration of a considerable rearrangement of Shelby affairs. New York becomes practically the headquarters of the company; it is here that General Sales Agent Frank L. Brown will make his office most of the time; the remainder of it will be spent in Chicago.

From New York the New England States and Canada, and New York, Pennsylvania, West Virginia, Virginia, North Carolina, South Carolina, Georgia and Florida will be covered; from the Chicago office will be handled the rest of the country. In addition to enlarged offices, a store on Varick street has been leased in this city and a stock of 500 tons of tubing ordered shipped here at once.

During the week a report went out that negotiations looking to consolidation were pending between the Shelby people and the National Tube Co. After the meeting had adjourned Mr. Brown was asked whether there was any truth in the report.

"This is the first I have heard of it," he said in reply.

"Then nothing of the sort is likely?"

"In these times anything is likely; thirty days ago, if any one had told us that the Carnegie Steel Company would sell out we would have refused to believe it."

Mr. Brown stated that henceforth the Shelby policy would be one of greater vigor and aggressiveness than ever before. Umbrella rods, perhaps bedsteads, and a number of other specialties will be added to the Shelby production, and all will be actively pushed.

In addition to the main selling offices in New York and Chicago Mr. Brown said that Shelby representatives would be stationed in Boston and Philadelphia.

"Branch stores?" inquired the *Bicycling World* man.

"No, I don't like that term," responded Mr. Brown; "it is too often misleading. It suggests an office or a depot from which goods are shipped and correspondence conducted. Branch stores scatter one's fire and cause a deal of unnecessary repetition and expense. 'Selling agents' is a more appropriate term for the representation we'll have in Boston and Philadelphia. We'll get the best men we can find for the positions."

"Will the establishment of your office in New York bring about any changes?"

"None at all. We'll have more offices and

more clerks, but Mr. Thornberg will remain in his present position and conduct business as heretofore."

Old Face in New Form.

One has only to wait long enough and the whirligig of time will bring in even that which is most hopelessly out of fashion.

Here is the harped-upon-until-it-was-dead problem of which part of a wheel moved the faster, the top or the bottom, being dragged from its well-merited retirement and made to do duty again as a live topic. If daily newspaper stories are to be believed, this mossback is agitating photographers in the West. Instead of its being a bicycle wheel, however, as it was many years ago, it is now the ordinary carriage or wagon wheel that is creating all the excitement.

"It is claimed," says the more or less voracious narrator, "and a large number of photographs are exhibited to prove it—that when the wheel of a rapidly moving wagon is photographed the top of the wheel never appears as clear as the bottom. The same is true of a wheel rolled along the ground in front of the camera.

"In many cases the developed picture does not show any spokes above the centre, while all those below the centre are clear. On the other hand, it is said to be absurd to pretend that the top of the wheel can go faster than the bottom.

"The mystery has been explained in this way: As a matter of fact, the top of the wheel does actually move faster than the bottom, that is, in relation to the ground. The bottom half of the wheel has only a vertical motion, while the top has a rapid horizontal motion, much faster than the hub or the wagon. With a time exposure, therefore, the bottom spokes show clear, while those above the centre are blurred."

Causes of New Departure Pride.

In these days, when all coaster-brakes are hub brakes, the New Departure Bell Co., of Bristol, Conn., are pointing with pride to the fact that the New Departure was the original hub coaster-brake. Incidentally, they report working overtime in that department, in which two hundred men are employed.

That the New Departure people have no cause for complaint about the state of trade may be readily imagined, and that their device deserves its success few will gainsay. It is a splendidly thought-out and worked-out invention. Applicable to either chain or chainless bicycle, comprising but six parts, devoid of springs, pawls, fibre or soft-metal parts, and requiring but one adjustment to bring all bearings into place—this fund of features makes it a strong factor whenever coaster-brakes are under consideration or discussion.

New York's gates have swung wide and often for prominent tradespeople. Among those in the city are Fred I. Johnson, A. L. Garford, L. D. Parker, Ezra Kirk, F. A. Sieberling and W. H. Crosby.

SITUATION IN AUSTRALIA

Trade Still Backward Despite Good Weather—Chance for the Chainless.

Melbourne, Jan. 14.—With regard to trade there still seems lacking the impetus that was expected with the advent of the warmer season, and hopes long cherished have failed to be realized. There is, of course, a certain amount of business done, but its volume is so small that it could be transacted if there were only half as many agencies and jobbers, and then not be inconvenienced. Touring, the backbone of cycling, seems to have gone by the board, and this I ascribe to the indifference of the league to touring matters in the past. The Victorian League has just lately thrown over the tourists altogether, and is now purely an association for the controlling of the sport.

As a sport cycling is in an awful condition. There is hardly a heat, let alone a straightout race, run on its merits, and the practices of the competitors, the backmarkers especially, are reprehensible in the extreme. As a general rule, one of the contestants is made favorite, preferably but not always the best man, and he is backed by the "school" and aided to win in every possible way, even to the bringing down of any outsider who may show any dangerous symptoms. The league so far, apparently, has winked at the pantomime.

I see by the *Bicycling World* that the chainless manufacturers are beginning to make substantial headway in the States. These machines are almost unknown here, although one agent did push them for a while. The price, however, as with most American bicycles, is most exorbitant; \$150 was wanted for a chainless, while for, say, a Massey Harris (chain) anything over \$100 is taken. There should be an opening for a low-priced—or rather a lower-priced—chainless, say, about \$80 to \$90. If they proved to be good they would catch on.

There does not seem to be any great attempt to push the sale of American parts, the English company, the B. S. A., having it almost its own way. The number of machines built up of these components and running about the country must be very considerable.

Motors are beginning to make themselves felt and—smelt. The growth of their use in this far and sparsely populated country is necessarily slow. There are several motorcycles, voiturettes and cars in Melbourne, and the spectacle of one in the city streets almost always causes a sensation. The users of these vehicles generally seem to have some trouble with them at odd times, which I put down not only to want of practice and experience, but to the fact that we do not always get the best of things sent out to us when ordered—an unpardonable mistake.

MIDDLE WEST BACKWARD

Lacks the Activity of the East and far West, Says the Satisfied Kirk.

One of the men in the trade who have cause for smiles of satisfaction is Ezra Kirk, head of the Kirk Mfg. Co.

He is in New York this week, and the smiles that are his are with him. He is not seeking orders just now, however; in fact, nearly all of his travellers have been called off the road, and are resting on their oars, so to speak.

Meanwhile, the big factory in Toledo is humming and puffing and snorting long after the shades of night have fallen. It's a case of overtime, and plenty of it, out there.

The Kirk people builded wisely and are reaping the reward. There is no type or size or price of bicycle that is not included in the output—chain, chainless, cushion frame, juveniles—all are on the Kirk list, and the range of price is wide enough to meet any contingency that may arise.

As a result the Kirk factory is choked with orders and is singing a long and merry tune in the effort to catch up. If there is anything that clouds the Kirk smile, it is this inability of the plant, large as it is, to keep pace with the demand for its product of Yale and Cornell bicycles. It is—well, several thousand bicycles behind orders. Mr. Kirk himself confirms the statement, and sees a record-breaking season ahead.

He has travelled a great deal during the last few months, going as far West as he could without taking ship—that is, to California—and in consequence has an intelligent grasp of the trend of trade. In the East and west of the Mississippi he finds the more cheering tone and the healthier demand. The Middle West, he says, is backward, and appears timid and lacking the confidence of the other sections.

On the Pacific Coast the Yale has had a strong run for two years past, and with Tom Cooper out there and riding a Yale there are no signs of a waning of its popularity. In the East the Kirk cultivation has been particularly thorough during the last few months, and the results have justified the attention. The new branch in Boston has rendered a good account of itself, and here in New York Frank W. Weston, the Kirk sales agent, has been making some good connections, one of the most recent being the appointment of the well-known M. L. Bridgman as the Yale agent for the Borough of Manhattan.

Relates to Second-hand.

In the Connecticut Legislature the Committee on Judiciary has reported the bill requiring pawnbrokers, dealers in junk, manufacturers of bicycles and dealers in bicycles to keep a description of all bicycles bought and sold, and the name, residence, etc., of cured,

Discussed Speed Limits.

Before the Judiciary Committee of the House at Hartford, Conn., last week, there was a hearing on the bill introduced in the Legislature a short time ago, and printed in full in the *Bicycling World*, relating to motor vehicles of all kinds.

The hearing was devoted principally to a discussion of the proper speed limit to impose on motor vehicles, and it brought out the fact that a wide range of opinion prevailed on the subject. The bill under consideration fixes this limit at eight miles per hour in the cities and twelve miles in the country, and an effort is being made to increase these figures.

It is noteworthy that two members of the House, Representatives Philbrick and Manross, both of them automobilists, declared themselves in favor of raising the limits to twelve and sixteen miles, respectively, declaring that these were entirely consistent with safety. Other automobilists appeared and took the same ground, while Representative Scoville upheld the proposed limits and asserted that any increase would be fraught with danger.

Down New Bedford way.

No one will begrudge Hoyland Smith, the New Bedford (Mass.) ex-racing man and dealer, the success which is attending him. He had an opening last week, and the crowd of sightseers was so great that the store, capacious as it is, would not hold them all. Motor bicycles came in for the greatest share of attention, the Orient and the Thomas fairly dividing honors. The opinion was generally expressed that the motor bicycle was the logical successor of the safety, just as the latter was of the high wheel, and while this prophecy is entirely too sweeping it is interesting as reflecting the opinion which is becoming more and more prevalent.

Col. Dodge Getting Better.

Colonel Theodore A. Dodge, president of the Single Tube Tire Co., is convalescing favorably at Lakewood, N. J. Recent reports stated that he had suffered a relapse and was in a bad way. When the rumor was carried to Colonel J. H. Rice, who is in charge of the Single Tube Co.'s affairs, he laughed heartily.

"Colonel Dodge is doing splendidly," he said. Then he took up a lot of manuscript sent from Lakewood. "He is doing so well," went on Colonel Rice, "that he is writing this history of Frederick the Great."

Luce Bill Referred to General Court.

In the Massachusetts Legislature on Monday, the House Committee on Judiciary referred to the next General Court the bill introduced by Representative Luce, to permit users of bicycles, tricycles, motorcycles and automobiles to have the same rights in the use of roads as are accorded users of vehicles drawn by animals.

JUST THE OTHER WAY

Tillinghast Minority Stated the Reverse of Facts—Court Ruled Against Them.

Whatever the object to be served, the minority stockholders who are fighting the legality of the transfer of the Tillinghast patent to the Single Tube Tire Co., have been pursuing questionable tactics in the effort to gain publicity.

The *Bicycling World* was one of the publications imposed on by "H. P. Booth, et als," the plaintiffs in the case. They not only stated by word of mouth but put the signed statement on paper that "the demurrer being sustained was appealed to the General Term by the defendants," when as a matter of fact and record the very reverse was the case. It was the plaintiffs—the Booth interests—whom the court decided against and who appealed the case.

The interlocutory judgment of Judge Lawrence, signed January 28, ruled that the plaintiff's allegations do not state facts sufficient to constitute a cause of action and ordered "judgement for defendants upon demurrers, with costs."

The Booth interests represent but 522 shares of the 4,000 constituting the stock of the Tillinghast Association, and the suit is based purely on technical points and involves, more or less, a family dispute. The appeal will be argued late this week or early next week. Even should it be decided against him, Attorney Edwin H. Childs, who appears for the defendants, expresses no doubt of ultimate victory.

Sercombe and his Schemes.

True to the reputation for enterprise which he acquired in the bicycle trade in the early and middle '90's, Parker H. Sercombe, formerly of Milwaukee, Wis., is reported to be engineering large schemes in the City of Mexico, where he has been for some years. He has resigned the presidency of a bank and is starting a new one, the Mexican Trust Co.

Parties in Chicago and New York are said to be interested in the new venture, which is to be capitalized for \$3,000,000. He also has in contemplation a combination of the cracker and biscuit factories of Mexico with American capital.

Hinsman Must Guess Again.

E. E. Hinsman, manager of the A. B. C.'s spoke and nipple factory has been vigorously denying in print the sale of the business and machinery to the Standard Spoke and Nipple Co., as was stated exclusively in last week's *Bicycling World*. Unfortunately for Mr. Hinsman, however, he was not called into the negotiations, and if he has not prepared himself for it he is not unlikely to receive one of those "rude awakenings" which have fallen to the lot of other managers.

AMERICAN INGENUITY

What the Patent Record of the Year Develops—667,137 Inventions Patented.

The report of the Commissioner of Patents for the year ending December 30, 1900, is full of interest and testifies to the activity and ingenuity of the American inventor.

Among other things, the report shows that the total number of applications for patents for inventions was 39,673, for designs 2,225 and for reissue 82, an aggregate of 41,980. The total number of patents issued during the year for both inventions and designs was 26,418, and of reissues 81. The number of trademarks registered was 1,721, labels 737 and prints 93, or a total of 2,551. The number of patents expired during the year amounted to 21,196, the number withheld for non-payment of fees 4,215, while the number of applications allowed and awaiting payment of final fees was 8,111.

Of the patents granted to foreigners Germany leads, with 1,070; England followed, with 987, Canada 367 and France 341; from these there was a gradually diminishing list, the total number granted being 3,483, and it may be truly said that these were scattered to the nethermost parts of the earth, forty-six countries being represented.

Perhaps nothing shows the growth of the

Patent Office better than a study of the results. For instance, in 1836 the work of the office represented an issue of 435 patents; the fees received amounted to \$29,289.08 and the expenditures to \$33,506.98, this being one of the eight times during all this lapse of years in which the work for any year has developed a deficit. From that time there has been a gradual growth, until in the last year the returns showed 41,980 applications, 1,731 caveats, 26,499 issues, involving receipts of \$1,350,828 and expenditures of \$1,260,019.62.

The first numbered American patent was granted on July 28, 1836, and was started with that number; the first reissue was in 1838; the first design was patented in 1843, the first trademark in 1870, the first label in 1876, and the first print on March 7, 1893. Since the first number in 1836 a total of 667,173 patents have been issued for inventions and 34,018 for designs.

Will Make Marine Motors.

It is reported that the Eagle Bicycle Mfg. Co., of Torrington, Conn., has begun the manufacture of gasoline motors for boats and launches. The company has been casting about for some line that could be worked in connection with its bicycle business, says a dispatch from Torrington, with the above result. The motor adopted, which is of the celebrated Parker model, was given a successful test last week.

LOOKING AHEAD

Part of the Cyclist's Duty Says the Court in Dismissing a Case.

In reversing the judgment of a lower court last week the Appellate Division in Brooklyn, N. Y., evidently took the ground that it was the duty of a bicycle rider to keep his eyes open and his wits about him at all times.

It appears that William H. Smalley, while riding a bicycle in one of the streets of Yonkers, came into collision with one of the electric lamps of the Yonkers Electric Light Co., which had been or was being lowered for the purpose of cleaning and supplying new carbons. The Appellate Division has reversed judgment on a verdict given in Smalley's favor in his suit against the company, holding, by Justice Woodward, that proof that the bicycle came into collision on a public street with the lamp under these circumstances, unaccompanied by other evidence, showing a want of due care on the part of the company, created no presumption of negligence on its part.

Candidates for commissions in the French army are in future required to prove themselves efficient not only in bicycle riding, but in the handling of motorcycles and motor-vehicles. Machines for instruction are to be kept at the military college.



Fisk Tires

Some makers try so hard to produce a light tire that, securing the desired end, they still have a tire which will puncture without end and make the rider's life one long continuous performance of trouble.

Other makers in an endeavor to produce a "puncture proof" tire go to the opposite extreme and make a tire that is so dead and heavy that it fails in the real mission of the pneumatic to absorb vibration. Riding such a tire over rough country roads reminds one—well, did you ever ride in an old-fashioned, springless wagon over a corduroy road? If you have, you know the sensation.

Fisk Tires are just light enough to be comfortable—just strong enough to be durable and make punctures a rare occurrence. The "no trouble" kind—easy to ride—easy to repair. The maximum of comfort from the minimum of care.

Fisk Tires are an antidote for riders' troubles and dealers' dumps.

FISK RUBBER COMPANY, Chicopee Falls, Mass.

BRANCHES: SPRINGFIELD, NEW YORK, SYRACUSE, BUFFALO, DETROIT, CHICAGO, 36 Dearborn St., SAN FRANCISCO, 159 Montgomery St.
REPAIR DEPOTS: 105 Reade St., New York, N. Y. 110 Portland St., Boston, Mass. 1015 Arch St., Philadelphia, Pa.

HAWKINS

1123 BWAY

THE BICYCLING WORLD

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and MOTORCYCLE REVIEW

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, MARCH 14, 1901.

Options Cease to Trouble.

Time works wonders, says the old saw, and not the least of them is the way the ills and abuses of the cycle trade are removed or alleviated by its magic touch.

There is the matter of options, for example. Time was when it caused the trade more trouble than almost any other one thing. With storerooms full of crated machines and factories working night and day, makers were still unable to make prompt shipments—and all because the popular demand for tires or handle bars or saddles had not been correctly gauged.

Similarly, the dealers were at their wits' end to make deliveries. On their platforms and in their cellars were plenty of machines, but the critical—not to say captious—buyer preferred some combination of gear, frame height or color, or other equipment different from the one the dealer had calculated on selling.

Nowadays the trouble from this source has been so nearly eliminated that it has

ceased to be a burning question. There are still options, as a perusal of the different catalogues will show, and still a disposition on the part of buyers to avail themselves of them. But the practice is kept within reasonable bounds, and where it is deemed necessary—as in the case of the cheaper patterns—the lines are so tightly drawn, the selection so circumscribed, that delays in shipments are the exception rather than the rule.

For this notable reform there is much to be thankful. It was the abuse of the option system that occasioned nearly all the trouble, and not the system itself.

Consequently when it ceased to be abused it no longer operated as a menace, and the trade was able to turn to other and more profitable matters.

Australia and the Chainless.

At this late day a complaint on the score of price—of high price—is so rare that it sounds strange to cycling ears. For this reason our Melbourne correspondent's cry against the prohibitive price at which chainless bicycles are laid down in Australia merits more than passing attention, particularly in these times of export shrinkages.

That bicycles of the sort are not retailed in Melbourne at considerably less than \$150 suggests that there is undue greed somewhere. We do not pretend to say where the greed exists, but that it does exist the figures prove for themselves; and the self-evident fact that the upbuilding of our export trade rests considerably on the popularization of the chainless in other lands should inspire those most affected to insert a probe and find out where the fault lies.

Our neighbors across the border are making a considerable effort in Australia, and Canadian bicycles are undoubtedly cutting a figure in the trade of that country. In considering the Australian situation our manufacturers should not permit the fact to escape them.

The "Fly-by-nights."

For several weeks past there has been activity in the ranks of the "fly-by-night" class of dealers and repairers, as they are slightly termed by that portion of the trade burdened with responsibilities.

This activity is likely to be continued, and even considerably increased, during the present month. The movement so far has resulted from the near approach of the selling season; it is certain to be greatly accel-

erated by the actual coming of that long-looked-for period. Memories of final farewells frequently grow dim, and the struggle is once more taken up, no matter how poor the prospects of success may be.

There is nothing new in all this. The movement occurs every spring, and will continue as long as hope springs eternal in the cycling breast. If the permanent trade is surprised it has but a dim memory, or is trusting beyond the ordinary.

The question of real importance, upon the answer to which so much depends, is: How does the present influx of returning tradesmen compare with that of previous seasons, and with the retirements of last fall and winter? Is it up to the usual proportions, or has there been the expected falling off?

Upon the reply depends, it is slight exaggeration to say, the success or failure of the coming season.

Divided between as many dealers and repairers as were in the field last year, the business will not be, cannot be, remunerative. Disappointment, even disaster, must follow unless the number of tradesmen is reduced.

It is too early to determine with any degree of accuracy what the net result will be. On the face of it there is a large number of re-entries each week, and only the knowledge that this is a usual accompaniment of the season of the year will serve to allay apprehensions.

The tide must rise very much higher than it shows indications of doing, however, ere the hopes entertained, apparently founded on reason, can be dashed to the ground.

Dealing With Second Hands.

In the matter of trading in second-hand bicycles many dealers are showing a disposition to scrutinize them closely and to discriminate in favor of the better makes.

For example, the rider who brings in a machine of reputable make, one for which he paid a fair price and which is still good for service, is treated with the consideration he deserves. A reasonable allowance is made him on the machine, which is regarded as possessing a definite value.

When the cut-price bicycle is brought in, however, it meets with a very different reception. Both its original price and its worth are taken into consideration, the amount of use it has received set off against this and a balance struck. When this has been done there is usually very little left.

Sometimes the extreme course is taken of

refusing absolutely to deal in such machines, just as in some quarters there is an increasing disposition to boycott them when new.

There is much to be said for both practices. Certainly if bicycles listing at less than \$25 are tabooed when new—as is the case in not a few sections—they are even less desirable as merchandise when second-hand. Consequently ordinary business prudence bids the dealer to go slow in the matter.

It is too much to hope that the time will come when such bicycles will not be dealt in, either new or second-hand. But something in this direction can be done, and the discrimination alluded to will undoubtedly be a long step in the right direction.

Crisis in Our Export Trade.

On few occasions has the trade had a more interesting or more instructive or more suggestive exhibit of figures than that bearing on the world's exportation of bicycles and cycle material, which is presented in this issue.

We believe the *Bicycling World* can justly lay claim to being the first to compile and present the statistics.

As a whole, the figures bring cold comfort to the American trade, but cold though it may be, unless we have lost our own spirit, the figures should act as a spur to our flagging zeal.

Although we still lead the list by a sadly shrunken margin, it is a fact not pleasant to contemplate that while the foreign business of the four chief cycle exporting countries declined during the year 1900, the United States's loss was greater by more than half a million than the combined losses of its three competitors, Great Britain, Germany and France.

The total exportation during 1900 of \$10,122,231 was exactly \$2,987,198 less than the business of the previous year—not nearly so great a shrinkage as was generally supposed was the case.

But of this loss of nearly three millions, the United States is responsible for \$1,759,223, or very close to 60 per cent. The combined losses of the other three countries aggregate but \$1,227,975, of which \$575,095 was lost by Great Britain, \$446,880 by France and \$206,000 by disgruntled and

boycotting Germany; the foreign trade lost by the three countries is thus \$531,248 less than was lost by the United States alone—a deplorable fact that conveys its own moral.

In the race for the cycle trade of the world we thought we had left all competitors so far behind that they could never come within hailing distance of us. The close of the nineteenth century, however, found England at our heels, and the record for the first month of the new century, as we stated last week, showed that that country had started with a lead of \$57,000.

At the close of 1899 our foreign trade attained a value of \$1,481,344 greater than England. The close of 1900 found this lead cut down to \$305,216. At the close of 1899 our export trade was \$1,892,784 greater than Germany's; at the close of 1900 Germany was but \$339,561 behind our record! And in both Great Britain and Germany themselves the American bicycle is a factor whereas in the United States a British or a German bicycle is as rare as a white crow.

It may be that the American trade will view these figures with complacency. It may be that foreign trade has ceased to be worth the candle. For ourselves we prefer to hold contrary opinions. We do not mean to pose as alarmists, but we doubt if the trade has really realized, or realizes how the ground has been slipping under its feet. We believe our figures will, for the first time, bring the fact sharply home to many and rouse them to the necessity for action of some sort. We earnestly hope so, at any rate.

To our mind the amalgamation into one giant corporation of so many previously active rivals is the chief cause of our loss of foreign business. Not only were the forces actually at work thus greatly reduced, but the spur of competition was dulled and a sense of overweening conceit or self-confidence created.

But unless our men and machinery have lost their cunning, the very tactics that have made the independent manufacturers the dominant power in this country should prevail and gain ground abroad. The breaches created by self-confidence referred

to are their openings and opportunities, if they will but realize it and take advantage of them while they exist.

Our cousins across the sea have apparently just discovered that the motor tricycle is too wide to pass through their gateways; accordingly they talk of narrowing the machines. When they are narrowed and pass the gates, our gentle cousins are likely to find that they are still too large and too bulky and too heavy to be carried into their houses and stored there. Then they may discover what we discovered some time ago: That the motor bicycle effectually and for all time solves the storage problem, along with several others.

Only a few years ago the "crown" system of frame construction—that is, the principle of making the upper and lower rear forks like a front fork, bringing the tubes together above or in front of the tire and continuing them thence in one piece—was one of the most popular to be found. At the present time, however, it has shrunk to inconsiderable proportions, and the public have almost forgotten about it.

Much less credit than is its due falls to the lot of the bicycle nowadays. When it is remembered that it will travel thousands of miles without the expenditure of a cent for any purpose whatever, and that some machines are run for whole seasons without cost, it must be seen that it is truly a marvellous performance. Nothing like it can be found anywhere else. Yet people accept it all quite as a matter of course.

With the advent of motorcycles there should come an increase in the size and weight of pneumatic tires. With ample power, comparatively speaking, in the motors such tires would go all right, and the greater immunity from punctures and other troubles which should result from their use would much more than counterbalance any slight increase in frictional resistance.

That an English parts manufacturer should almost completely dominate the trade in Australia—vide our Melbourne letter—should "suggest things" to our own makers of fittings; and the suggestions should be followed by action of some sort.

ENGLISH EYES OPENING

They Discover Something About Motor Tricycles—Judge Defines a Motorcycle.

London, Feb. 27.—A well-known motor agent who deals largely with motorcycles tells me that one of the obstacles to the sale of motor tricycles—and he looks upon the trade in three-wheelers as representing the major portion of the business in motorcycles now and for some years to come—is the width of these machines. This at first seems rather curious, but we are brought back to the days of the early tricycles, when a great number of people could not go in for the new pastime because they could not house the machines.

With the motor tricycle the cost is a great deal more, and it is therefore likely to be purchased for the most part by well-to-do people who live in houses rented sufficiently highly to presumably offer the accommodation needed. But the fact is that the London houses, and indeed those of many country towns, are not built with a view to receiving tricycles. Often the gates are too narrow, even when the rent is as much as \$300 or \$400 a year. Hence it is that the modern tricycle of the purely cycle type is so narrow. According to the agent, it would be much easier to sell motorcycles were the width of such machines reduced to about thirty inches, or practically the same as that of the ordinary pedal-propelled tricycle.

And yet the solution of the problem is by no means so easy to find as was the case when tricycles were first brought into popular favor. Then inventors devised folding machines and telescoping axles, and finally the manufacturers got over the difficulty by reducing the width of the rigid machine. This could no doubt be done equally with the motor tricycle, but as the speed is so much greater the danger of narrowing the machine would be great. Many of the motorcycles are very broad and yet not too wide, having regard to the conditions under which they are often employed. Still, if the housing difficulty is really going to stop trade it may be necessary to have recourse to some of the telescopic-axle plans, and the addition of a few pounds would not matter, whereas on the ordinary cycle additional weight is a very serious consideration.

The judgment given by Mr. Justice Byrne in the case of the Royal Agricultural Hall Co., Ltd., vs. Cordingly, in which he ruled that a motorcycle is a motorcycle, even although Mr. Boverton Redwood says it isn't, will have the effect of debarring the defendant from showing any great number of these machines at his forthcoming exhibition unless he prosecutes his threatened appeal. Even then I doubt if the case will come on in time, and so Mr. Cordingly will either

have to reduce his motorcycle section or pay a substantial sum in the event of the appeal going against him. Really, when we consider the increasing trade in cars and voitures, it would seem a cheaper and wiser policy to let the Stanley Cycling Club take over motorcycles as such and run them with the ordinary cycles at their annual show. After all said and done, it is more likely that business in motorcycles will be done at a cycle show than at a car exhibition, for the people who visit the one generally are interested in cycles, and the visitors at the other are essentially carriage folk, and hence hardly likely to give much attention to motorcycles. I should say that the case is hardly worth contesting, especially when there is as yet little profit in it either way, and all the money will go to the lawyers.

The free-wheel motor tricycles—by which term I mean the free-motor machines—are getting about, and during the week I have seen three such cycles in London. In traffic they are a great boon, as they are as much under control as a car, and the rider has not to pedal slowly behind a cart, and be nearly thrown out of his saddle by the jerky beating of a motor which he dare not allow to run fast enough to reduce vibration, on account of the slow speed at which he is constrained to travel. With the free motor all this has altered. The rider now sits at ease and slips the clutch partially in gear when he desires to move forward, and out of gear when he stops. He has not the labor of restarting the motor after every pull-up he may have to make. For those people who do much town riding a free motor is a great thing, and will do much to popularize motorcycle.

Damage Talks of Things American

On his return to London A. W. Gamage, the well-known jobber, who attended the New York show, told the reporters that, "even if the Americans are goers and hustlers, you can't get away from it that they are great talkers. The Britisher is just as great at a deal, but doesn't talk so much. Talking helps to kill time, certainly, and makes a man or a nation imagine they are doing a lot, whereas it only comes to the same in the end, with, perhaps, the odds on the non-talker.

"Yes," he said in reply to the question, "I purchased a large number of bicycles when out there. I had no intention of so doing, but at one of the factories I was privileged to go over I saw the process of manufacture, from the tiniest bolt and nut to the complete machine, and the price was so tempting that I invested in some hundreds. With the Leroy bicycles, which, with coaster, or English free wheels, fitted, I shall be able to offer the public something of grand value at a price that will astonish them.

"There were many other deals which I 'fixed up'; the New Departure hub and brake was one, which is ahead of anything of the description I have seen, and which can be re-tailed at the right price."

MERRILL MAKES THREATS

Lets fly a Charge of Slang and Hot Shot at the "Peripatetics."

Fred T. Merrill, the Portland (Ore.) dealer, evidently has blood in his eye, if some of his advertisements in the Portland papers are to be accepted at their face value. Here, for instance, is what he says and threatens in one of them:

"This is the time of year when the 'fly-by-night' bicycle agents unfold their tents and announce that they are here to stay and have the best bicycles in the world to sell. All kinds of 'gas-pipe' machines, with a nice coat of enamel and nickel and a nice-looking saddle, will be shipped into the Northwest before March 1. Why? Because they can't sell them in the Eastern States. They have reached the end of their rope. Thousands of Eastern riders gave up bicycling in disgust after getting 'soaked' with one of those 'just-as-good' bikes which have flooded the East during the last two years. Now those manufacturers of 'punk wheels' are turning their attention to the West to dispose of their output, and, if they succeed, down will go the excellent bike business of the West. All sorts of names and subterfuges will be employed to unload their stock early in the season before the country agent and the prospective purchaser 'get wise.'

"There are reliable agents selling reliable bicycles in every city and town in the Northwest. Why not patronize them and be protected? We claim the honor of building up the high-grade bicycle business of the West, and we want to still protect it, and, if necessary, we will come out in 'cold type' and show up the fakirs, with their mongrel wheels, who are swarming into the Northwest like bees to unload their 'freak' and 'best-in-the-world' truck, and then fold up their tents early in the fall and 'hie themselves hence,' and all the while laugh in their sleeves to think of the damage they have done to the bicycle trade."

Keep Tooting!

If you toot your little tooter and lay aside your horn, there's not a soul in ten short days will know that you were born.

The man who gathers pumpkins is the man who ploughs all day, and the man who keeps it humming is the man who makes it pay.

The man who advertises with a short and sudden jerk is the man who blames the editor because it doesn't work.

The man who gets the business has a long and steady pull, and keeps his local paper from year to year quite full.

He plans his advertisements in a thoughtful, honest way, and keeps forever at it until he makes it pay.

He has faith in all the future, can withstand a sudden shock, and, like the man of Scripture, has his business on a rock.—(Ex.

We want an opportunity to reason with you for we know if you know what we know about our line of bicycles, you would be another one of those loyal supporters of

YALE BICYCLES

They are right all through and we want you to know this.

If you have not seen samples of our 1901 models, write us and we will arrange to acquaint you with their extreme merits.

.....

THE KIRK MFG. CO.,
TOLEDO, OHIO.

BOSTON BRANCH: 167 Oliver Street.
Edw. Buffum, Manager.



HARTFORD TIRES

**WITHIN
THE REACH
OF ALL.**

the luxury of the best tire,

**THE
HARTFORD
TIRE,**

cannot be overestimated by those desiring *perfect* bicycle satisfaction.

It lasts twice as long, gives three times the ease of any other tire, and it can be depended on for hard service: in fact—

"IT IS AN HONEST TIRE!"

Under all conditions it has been maintained as such—and always will be.

The Hartford Rubber Works Co.
HARTFORD, CONN.

AUTOMOBILE VS. MOTOCYCLE

Why the one Appeals More Strongly to the Veteran Cyclist.

"A motorcycle I must have when the season opens," said the rider who started with the high wheel," but what puzzles me is what kind of a machine will be best to get."

"Why not get an automobile at once and be done with it?" interposed the automobilist, who had long ago settled the matter to his own satisfaction, "you will come to it sooner or later, and you might as well do it first as last."

"An automobile be hanged," was the retort. "What do I want with an automobile? I'm a cyclist, and it's a cycle that I am going to get. I have no use for anything else."

"It's just a question of money with you," his opponent replied. "I take you to be a man of intelligence, and being so I can't conceive of your wanting anything but an automobile. You may get a cycle because you can't afford the former, but it will only be a stopgap, used until you can afford an automobile."

"You are talking nonsense, and I am surprised at you for it. Why, I could get more fun out of a cycle in a month than out of an automobile in a year. I might want the latter—yes, I know I should—if I could afford both; but reduced to a choice of one I would never hesitate a minute in taking the cycle."

"This is true, even if we leave out of the question such matters as cost, storage, handling, power, etc., all of which are entirely in favor of the cycle. It is the old question over again—the cycle versus the carriage—and I long ago decided it in favor of the former. The passage of years has not made me any less keen on cycling; it is simply that I am not quite so active nor so capable of withstanding fatigue."

"All my old love for the pastime is still there, and all I want is something that will take the donkey work off of me, something that will take me up hills or against the wind or even on the level if I so desire. But I don't want to be penned up in a carriage, limited to certain roads, bound by the same rules that hedge carriages in. I want to feel that I have always ready a machine that will do everything that my old cycle did—and a little more."

"There is no more delightful sensation than to speed along over sidepaths, or over roads remote from the much travelled highways; to blaze away in whatever direction fancy dictates, conscious of no impediment, no responsibility, save such as is found in the light and portable cycle."

"Then, too, I derive a positive pleasure from being mounted on a cycle. I love the saddle, the handle bar steering, the pedals,

even. I am as free as air, able to take my ease if I so desire, or to indulge in exercise should the whim seize me. If anything goes wrong—something that cannot be repaired by the roadside—I can, on a cycle, get home without making requisition on a team of horses."

"In short, the cycling habit is ingrained in me, and I could not, even if I would, shake it off. Of course, with myself, as well as with the great majority of cyclists, it is a case of Hobson's choice; a cycle is the only machine I could afford to buy or store; but irrespective of that fact I would choose a cycle instead of an automobile if I could only have one of them."



NEW YORK BRANCH: 214-216 WEST 47th ST.
BOSTON BRANCH: 80 BATTERY MARCH ST,
Near Fort Hill Square.

Henshaw is Hopeful.

It is not easy to find a dissenting voice to challenge the general belief in the forthcoming success of the motor bicycle. Directly in this line is a letter written on the road by C. S. Henshaw, who recently joined forces with the E. R. Thomas Motor Co., extracts from which follow:

"Motor bicycles are certainly going to have a big run in this country, judging by the interest taken in them, both by the bicycle agents and the general public. Although I have been on the road not quite three weeks, I have placed eleven agencies between Buffalo and Glens Falls, notwithstanding the terms are cash on delivery."

"In every town where I go my machine is exhibited in the agent's store, and when the streets are in rideable condition I let anybody take a spin, and there are generally five hundred people or more ready to accept the invitation. In Schenectady the other day the agent's store had from fifty to one hundred people all the evening, and they were lined up outside the window five deep when the machine was running on a stand. I think this will be a very good cycling season."

BEARDSLEY'S WORLD-BEATER

Stirs Memories of Long Ago but it's Patented Just the Same.

In these degenerate days it is not every week that the cycle pressman is called on to examine a new bicycle, one containing entirely new and demonstrably superior features. When, therefore, an invitation was extended to call on F. W. Beardsley, Room 31, 179 Broadway, New York, and inspect such a machine, the *Bicycling World* man rubbed his hands and betook himself to the place designated, filled with pleasant anticipations. Novelties had become very scarce, and exploiters of new bicycles were still more difficult to find.

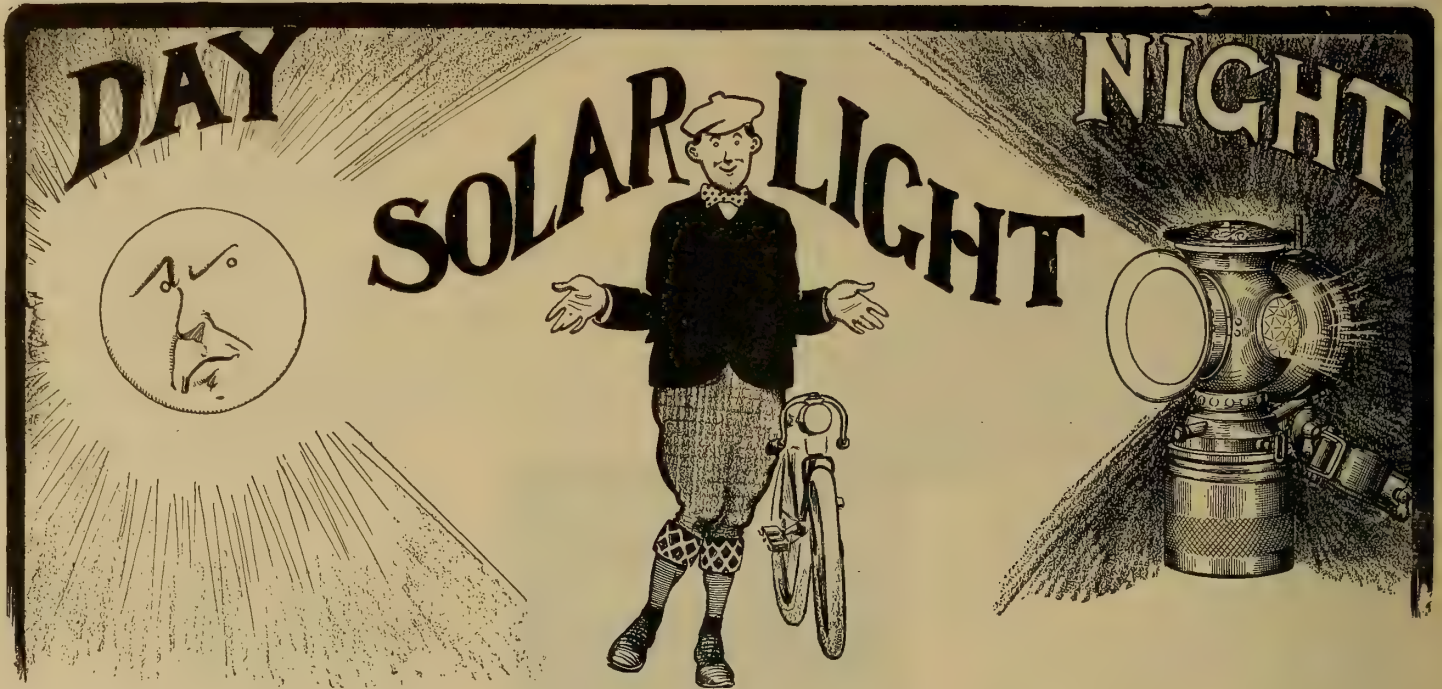
The bicycle was brought from an inner room by Mr. Beardsley and triumphantly deposited on a stand for his caller to go into raptures over. It proved to differ from the ordinary pattern only in the matter of the application and transmission of power. To each of a pair of cranks was forged an arm, which held a small wire cable; the latter ran back to the rear hub and was attached to a drum. Pressure on the crank, through the pedal, carried the arm or lever forward, bringing with it the wire cable and winding up the drum, and causing the hub to rotate at a rapid rate. When the crank had described almost a half circle it returned to its original position—the other crank being depressed meanwhile—and a clutch fitted inside the drum permitted the latter to remain stationary while the remainder of the hub continued to revolve.

It will be seen that this method of driving bears a considerable resemblance to that used on the old Star. The latter, however, had levers, and the winding of the drum was done by a strap, while springs had to be fitted to assist the rising of the levers after each stroke.

On the Beardsley machine the motion of the cranks is not altogether unlike that of the regulation bicycle. When one crank reaches its lowest point it retraces its course, the downward pressure of its mate causing it to rise, thus dispensing with the necessity for a spring to effect this purpose. The arm or lever is about three inches long, and the leverage exerted is very great.

The device is said to be fully protected by patents, the latter being at the disposal of any capitalists who may consider it worth exploiting. A great many people have examined it, among them being representatives of a number of bicycle concerns, but whether because of the present depressed condition of the bicycle business or lack of faith in the value of the invention they have as yet made no move to place the machine before the public.

The detective and law departments of the Dunlop Tire Co. are important tentacles of that English monopoly. During the year 1900 some three hundred infringers were located and injunctions obtained.



They were the first successful bicycle lamps made.
 They were the first gas bicycle lamps advertised.
 They were the first gas bicycle lamps sold by the dealers.
 They ARE the FIRST lamps in the riders' esteem.

There are reasons for this — first because we manufacture them ourselves in a factory built expressly for this purpose, and they are not made by the “lowest bidder;” second — because we use a patented system of generation which no other lamp makers can use; third — because we guarantee them fully and are liberal with this guarantee; fourth — because we advertise them generally and help the dealers create a demand.

You as a dealer cannot afford to overlook the above facts. You know as soon as the season opens that your customers will begin to ask for the 1901 Solar. “THE BEST LAMP WE EVER BUILT.”

You also know that unless you order NOW and get your stock in, you will miss some sales, for at the season's opening, the jobbers can't fill all orders at once.

BE WISE and if you haven't ordered your stock of Solars, DO SO TO-DAY.

If you are not acquainted with our plan to give
 Automobiles and other valuable prizes to dealers who
 handle Solars, write us at once for full particulars.

THE BADGER BRASS MFG. COMPANY, KENOSHA, WIS.

PROTECTING PATENTS

The Difference Between the Fair Play of Germany and the United States.

Except on the theory that it has always been the habit of Americans to give the people of other countries cards, spades and a beating, it is not easy to say why foreign inventors at the Patent Office at Washington should be placed on exactly the same basis as American citizens.

While the question of trademarks has been repeatedly ventilated, writes an American now in Berlin, I think the protection of American patents in Germany has not been sufficiently agitated by the industrial press.

In taking out an American patent the German has practically the same protection as the American, while patents taken out by Americans in Germany and in some of the other Continental countries become practically worthless unless the article is being actually manufactured in the Empire within two or three years from the issue of the patent.

The recent decisions of German courts have shown that it does not suffice to manufacture only a small percentage of the quantity sold in the Empire, but that it is imperative to actually produce in Germany about 75 per cent of goods sold.

I fully recognize that patents do not give absolute protection against competition, and that they can often be evaded; nevertheless, they serve in the United States as well as in Europe to greatly reduce the chances of an article being copied, for every honorable manufacturer, and even one inclined to be less scrupulous, will hesitate to copy a design if he sees even the possibility of a legal conflict.

Standard articles do, of course, not suffer so much from the inequality of the respective laws as the many ingenious designs in automatic and special machines; the latter class embodies frequently not only the results of many years of experience, but often also represents the expenditure of an untold amount of capital, and therefore can be sold by the copyist much cheaper than by the originator.

I believe many of our most prominent manufacturers have had sad experience in this line, being obliged to sell either at a reduced price on the Continent of Europe or to leave that section of the world to those that take advantage of the present Continental patent laws.

If the United States shaped its patent laws on Continental principles Americans would, of course, have no cause to complain; but why should the prevailing unequal conditions continue to exist? The present revision of treaties certainly offers an excellent opportunity for putting an end to this source of unfair competition.

The Music of the Motor.

What strange contradictions lie in our tastes! observes the Irish Cyclist. For long we held that one of the charms which made the cycle pre-eminent as a means of locomotion was the utter noiselessness of its progress. The silent speed seemed a quality absolutely essential to the complete happiness of the cyclist, and he got to such a state of feeling that any click or noise in the machine irritated him like a hideous discord.

Yet on taking to the motor, whether in the form of car, tricycle or bicycle, the noise of the engine became the merriest music; its hum was pleasurably listened to, and the different tones which marked the different speeds were each a delightful variant on the melody. Not for anything would the sound be missed. When it stopped, as when rushing down hill with the engine out of gear, there seemed to be something wanting. There was no rhythmic beat to mark progress.

On some days we have chopped and changed from the muscle-driven bicycle to a motor tricycle and thence to a motor bicycle, and found for each a separate set of sensations. It would be as hard to say which were the more pleasant as to ask a man whether he thought bread nicer than water. The cycle still possessed all its old charms; we appreciated its noiselessness and its lightness and independence perhaps more highly than ever when brought into sharp contrast with the other forms of locomotion, which, of course, in their way had also their peculiar attractions.

It is only the man who has but experience of one pastime who argues that one cannot be a keen motorist and a keen cyclist at the same time. Indeed, he perhaps never fully appreciates the ordinary cycle till experience has set up these comparisons for him.

Casting That Need no Machining.

The Metal Castings Co., of Springfield, Mass., the incorporation of which was recorded in these columns last week, has organized, with the following officers:

President, Edward P. Chapin; vice-president, Arthur I. Nash; treasurer, W. Fred P. Fogg; secretary, Frederick Carpenter; superintendent, Moro D. Stebbins.

The concern will manufacture and market metal castings made of a special composition, the invention of M. D. Stebbins—formerly the manufacturer of a wooden bicycle made at Springfield—and G. P. Jones, of Boston. These castings are expected to be largely used on bicycles and motor vehicles, being especially adapted for these and other purposes on account of their low cost and the doing away with the necessity for machining.

Pleased With the Outlook.

N. L. Biever, of Derby, Conn., who makes the Pierce his leader, says that he expects a good season, due to a revival of interest in the pastime. He is particularly busy in his repair shop, many machines being brought in to have coaster-brakes fitted.

MEASURING RESISTANCE

Three Methods Employed by the Experts to Test Speed and Friction.

"Cycle Resistance" was the title of a paper read by H. E. Wimperis, B. A., at a recent meeting of students of the British Institution of Civil Engineers, from which the following extracts are taken:

"The frictional resistance to a cycle is usually measured in one of two ways. One of these is to haul the bicycle to be tested, by a rope, and to measure the pull on the rope by means of a spring balance having a suitable dashpot attachment. Readings of the spring balance are taken at intervals, and during each reading the speed of the cycle is noted by some convenient means; in this way the relation between frictional resistance and speed is found, and can best be shown by plotting as a curve. This method, in common with the others to be mentioned, suffers from the drawback that the rider of the cycle has to be in a coasting position throughout the test, and the frictional losses appear to be less than they really are in actual cycling.

"The other method is to allow the cycle to coast down long hills of known slope, and to measure the terminal velocity arrived at. Then, since the velocity is constant, the acceleration is zero, and the frictional forces must exactly balance the pull due to gravity. This enables the relation between frictional resistance and speed to be obtained, and a complete curve can be built up if the experiment be repeated on several hills of different slope."

A third method, which in practical operation is considerably simpler than either of the foregoing, is described in the paper. This method consists in obtaining a relation between T and V , where T is the time taken by a cycle to come to rest on a level road from velocity, V , the pedals not being in use. As a check on the method and on its mathematical treatment the author measured in each case the distance travelled in the time, T , thus obtaining yet another curve.

The mathematical treatment of this method is not so simple as that of the other methods, but with patience very accurate results may be obtained, and the experimental values obtained are probably considerably more accurate, and therefore lend themselves better to analytical treatment.

Completeness of Hall's Catalog.

It would be difficult, indeed, to imagine a more complete catalogue than that issued by the E. H. Hall Company, of Rochester, N. Y. It comprises 136 pages and lists something like 490 different articles, most of which are illustrated and all of them of interest to the cycle dealer.

WHY BUY New Jersey
Mud mixed with Sulphur
and baked on to Fabric,
when for about the same
price you can buy really
High Grade Tires?

No. 66 Fisk just one-
half factory price, and
Kangaroo one-half price.

Write for prices before
they are closed out.

BOSTON CYCLE AND SUNDRY CO.,

J. M. Linscott, Manager,

7 HANOVER ST.,

BOSTON, MASS.

WHY BUY TIRES 5 YEARS OLD BUY NEW 1901 TIRES

Which riders rejected when they
were new, when you can

for less money,
with more satisfaction?

**SPECIAL LOW PRICES
ON HARTFORD BRANDS.**

We are not closing out, are not hard pressed for
money, and are here to stay.

UNITED SUPPLY CO.,

55 Hanover St.,

Boston, Mass.

YOU
DON'T
need to
TALK
in order to
SELL

**CUSHION FRAME
BICYCLES.**

Simply put a
PROSPECTIVE CUSTOMER
on a

TRIAL WHEEL

with instructions to

RIDE IT 30 MINUTES,

and the

CUSHION FRAME

WILL DO THE REST.

Get your **CUSHION FRAME**
ORDERS in **EARLY**
to your manufacturer.

HYGIENIC WHEEL CO.,

220 Broadway, - New York.

Owners of the Cushion Frame Patents.

**THE NEW DEPARTURE
COASTER BRAKE**



THE ANCIENT WITCH

**THE BEST
THE MODERN WITCH.**

MANUFACTURED BY
THE NEW DEPARTURE BELL CO.
BRISTOL, CONN. U.S.A.

FREE WHEEL,
TIGHT PEDALS,
ANY SPROCKET,
ROLL BACKWARD.

SELLING AGENTS
JOHN H. GRAHAM & CO.
NEW YORK CITY.

OUR
CRANK
HANGER
DOES
IT.

The
Racycle

DOES
WHAT?
MAKES
IT RUN
EASY.



THERE'S REAL COMFORT
IN THE REEVES
Ideal Spring Seat Post.

It relieves all jolts and jars, and converts any
Bicycle, new or old, into a Cushion Frame. Fits
any wheel. Sent prepaid to any address on
receipt of \$1.75. Money back after three days'
trial if you want it. Send size of present post.
D. E. ORVIS & CO., 71 E. Genesee St. Buffalo, N.Y.
Reference, Buffalo Commercial Bank.

Dealers send for Circular and Wholesale Price List.

WIRE VS. WOOD WHEELS

How and Why the Former Came to be Used in Bicycles.

As between wire and wood wheels for bicycles both theory and practice are emphatically in favor of the former. In fact, there is not, and never has been, any real dispute. The efforts made to popularize the wood wheel were both feeble and intermittent, and ended in nothing.

Some of the reasons for this unquestionable superiority of the wire wheel are given by a writer in the *Cycle Trader*, who has gone into the subject exhaustively and yet entertainingly. The wire wheel, he says, is radically different, in both its construction and mode of operation, from the "compression spoke" or ordinary vehicle wheel, and constitutes a distinct type of wheel construction, and the fact that both comprise in their structure, in terms, hubs, spokes, rims and tires constitutes their only similarity, each of these elements, however, being entirely different in their construction and mode of operation in the two classes or types of wheels, so that the use of any one of these elements in one class of wheels is not analogous to its use in the other.

To summarize: In one the spokes are rigidly attached to the hub, in the other they are attached by flexible joints; in one the spokes are required to withstand an end thrust, in the other a tensile strain; in one the rim is supported upon and its circularity maintained by the ends of the spokes, in the other the spokes yield no support to the rim, but, on the contrary, exert a pulling strain upon it; in one the spokes have a rigid attachment to the rim, and in the other an adjustable attachment; in one the rim is restrained by the tire, in the other the tire exerts no restraint whatever; in one the wheel is adapted to serve only as a roller to support the load while the vehicle is being drawn or pushed, in the other the wheel becomes a traction wheel and the force required to propel the vehicle is exerted as a torsional stress upon the entire wheel.

In one the load is supported by the spokes below the hub, which are compressed by the weight of the load; in the other the load is suspended by the spokes above the hub, and the weight of the load is supported by the entire rim acting as a double arm, or a direct arch resting upon an inverted arch; in one the weight of the load is received by a limited portion of the rim, and the strain in that limited portion is one of compression; in the other the rim receives four distinct strains, two of which tend to decrease its curvature and the other two to increase it, and these strains are alternating, and are constantly changing positions as the wheel revolves.

In one class of wheels a stress tending to

decrease the diameter of the rim is resisted by the spokes, and one tending to increase the diameter of the rim is met by the tire, usually an iron or steel tire; in the wire wheels a stress tending to increase the diameter of the rim is met by the spokes, and no restraining force is exerted by the tire, and the tendency of the rim to decrease in diameter in any particular portion is not met by the spokes attached to that portion of the rim, but by the spokes attached to the adjacent portions of the rim, where they resist any tendency to an increase in the diameter of the rim, and therefore the resisting force of the spokes is transmitted through a portion of the rim itself. In one class of wheels the rim is maintained in its plane of rotation by the rigidity of the spokes; in the other class, or wire wheels, this result is secured by the tensile strain of the spokes, exerted in lines of opposing obliquity to the plane of the rotation of the wheel, secured by connecting the rim to the opposite ends of the hub by alternate spokes.

The horse-drawn vehicle requires a wheel to act simply as a roller to support the load, and for this type of vehicles opinion, supported by practice, is about evenly divided between the wire wheel and the compression spoke wheel.

Practical mechanics readily admit the greater adaptability of the wire wheel to self-propelled vehicles where the propelling force is exerted at the hub of the wheel and resisted by the combination of the spokes and rim in contact with the ground. We do not believe that argument or comment on this point is at all necessary.

Pneumatic tires and rubber tires of every description are employed to reduce the vibration incidental to the travel over rough and uneven roads. In the horse-drawn vehicle this reduction of vibration is essential to the comfort of the passenger; in the self-propelled vehicle it is essential as well to the mechanical devices employed in its construction.

If rubber tires are employed to absorb vibration it is also desirable to employ that type of wheel best adapted to absorb vibration. If there be any doubts in your mind as to which of the two types or classes of wheels described will absorb the greatest vibration, a simple test can be made by "bounding" the wheels of each type from a solid surface.

20th Century's Souvenir.

For several years a framed picture of some sort has been an annual souvenir of the 20th Century Mfg. Co. This year's takes the form of a large bird's-eye view of the last New York Cycle Show, flanked on either side by a photograph of their particular booth and of their particular lamps.

The motor bicycle will shortly make its debut on the vaudeville stage. Ralph Johnstone, the trick rider, has purchased a Thomas Auto-Bi for the purpose, and is said to have some hair-raising stunts on his list.

FOR "FOOT PASSENGERS"

Crossings Were Designed for Their use, Says his Honor, not for Vehicles.

That the street crossings are provided for the accommodation of foot passengers, and that they have the right of way on them over vehicles of every description, are principles of the common law older than the republic.

Like a great many other excellent laws, however, this one is more honored in the breach than the observance. Rights do not count for much unless those possessing them have the courage to stand out for them, and this is just where most pedestrians fall down. When it comes to disputing the right of way with a vehicle—whether it be the lumbering truck with stolid and often brutal driver, full of the idea that he owns the road, or the swifter and more elusive bicycle, whose rider has not infrequently been accused of sharing in the same mistake—right is confronted with might, and discretion is deemed the better part of valor.

Occasionally, however, a stand is made by some courageous traveller, and the courts are called on to reaffirm the law. Availing itself of such an opportunity recently, the Supreme Court of Wisconsin spoke in no ambiguous terms when it said that even in the case of such a public conveyance as a street car the pedestrian's right was not abated one jot.

The Court, in defining the rights of a person in crossing a street-car track in advance of an approaching car, conceded to the traveller the right of way, if, calculating intelligently, he has sufficient time to clear the track without retarding the movement of the car. But even if he should miscalculate he is still within his rights, the Court held, and is not chargeable with lack of care, if the railroad company should be compelled to retard the motion of the car, or to stop it, in order to permit him to pass in safety.

Maltby has a Motor.

After three years' work, F. D. Maltby, of Bensonhurst, L. I., has completed a motor bicycle and is endeavoring to secure capital for the purpose of exploiting it.

In it the engine is placed in a nearly vertical position, the shaft being just above the crank shaft of the bicycle, and chain transmission being used. The forward portion of the frame contains a tank, which is divided into compartments. The supply of gasoline is contained in the lower compartment and the battery in the upper. Back of this tank, and fastened to the top frame tube, is the induction coil. It is claimed for the carburetter that it is not affected by the changes of the atmosphere.

The Retail Record.**FIRES.**

Greenfield, Ind.—Lacy & Gappen, no insurance.

Cambridge, Mass.—W. L. Porter, Massachusetts avenue, damage about \$150.

CHANGES.

Easthampton, Mass.—B. W. Smith, closed.
West Leesport, Pa.—Morris Bossler, built an addition.

Norwalk, Conn.—J. C. Roth, removed to 86 North Main street.

Plainfield, N. J.—H. C. Drake will remove to 115 Madison avenue.

Wheeling, W. Va.—Friedrichs & Dillon succeed Friedrichs Novelty Works.

Vincennes, Ind.—L. D. Scott has bought out Hoggmann & McAndrews.

Melrose, Mass.—C. J. Wing, 131 Myrtle street, removed to 40 Essex street.

NEW STORES.

Rockford, Ill.—Burr Bros.

Batavia, N. Y.—Thomas Bros.

Norwalk, Conn.—J. W. Colby.

Findlay, O.—Gunderman Bros.

Branford, Ont.—B. M. Prescott.

Chicopee, Mass.—Grady & Minie.

Torrington, Conn.—L. H. Holley.

Springfield, Mass.—F. L. Harvey.

Essex, Conn.—Axel Olson, repairing.

Alliance, O.—J. H. Gelston, repairing.

Centreville, Mass.—Clarence Phinney.

Newton, Mass.—F. J. Read, reopening.

Great Barrington, Mass.—C. E. Cross.

Girard, Ill.—W. G. Howland, repairing.

Montender, Minn.—Axel Hansen, repairing.

Sloatsburg, N. Y.—Aaron Taylor, reopening.

Brockton, Mass.—George J. Donahue, Main street.

Utica, N. Y.—J. F. Coupe, 218 Bleecker street.

Brighton, Mass.—A. J. Fay, 1,605 Beacon street.

Jefferson, Mass.—Frederick Taylor, Main street.

Little Falls, Minn.—Charles Guernon, repairing.

Florence, Mass.—James Duffy, repairing, reopening.

Trenton, N. J.—Arthur Hendrickson, East State street.

Boston, Mass.—C. S. Sprague, 206 Devonshire street.

Auburn, N. Y.—Whipple & Foreman, 70½ Genesee street.

Chicopee, Mass.—L. P. Booth, 46 Cabot street, repairing.

Fair Haven, Conn.—Charles A. Boleduc, 373 Grand avenue.

Quincy, Mass.—William St. Pierre, Franklin street, reopening.

Mattapan, Mass.—Walter Thompson, No. 1,1631 Blue Hill avenue.

Jamaica Plain, Mass.—Charles E. Johnquist, No. 106 Boylston street, reopening.

Newburyport, Mass.—Pentucket Cycle Co., State street, branch of same concern at Haverhill.

To Braze Cast Iron.

The reason that cast iron cannot be brazed with spelter, as wrought iron can, says a contemporary, is that the graphitic carbon in the former prevents the adhesion of the spelter, as a layer of dust prevents the adhesion of cement to stone or brick.

A process to remove this graphite has been patented in Germany, consisting essentially in applying to the surfaces to be united an oxide of copper and protecting them against the influence of the air with borax or silicate of soda. When the joint is heated the oxide of copper gives up its oxygen to the graphite, converting it into carbonic oxide gas, which escapes in bubbles, while particles of metallic copper are deposited on the iron.

Any oxide of iron which may be formed is dissolved by the borax, and the surfaces of the iron, thus freed from graphite, unite readily with the spelter, which is run into the joint before it cools, the copper already deposited on the iron assisting the process. The inventor claims that cast iron can in this way be readily brazed in an ordinary blacksmith's forge.

Drill Sharpening Directions.

Few operations on tools in the shops are more frequently disappointing than the grinding or sharpening of drills, says an authority on the subject.

That the cutting edges have a proper and uniform angle with the longitudinal axis of the drill, having them of exactly equal length, and the lips of the drill well and sufficiently backed off or cleared, are points generally understood as requisite to the satisfactory performance of a drill, though not always attained. Practical suggestions for the grinding of drills have been published from time to time.

If the clearance of a drill is insufficient or imperfect it will not cut. When force is applied it resists the power of the drilling machine, and is crushed or split. It is well to start a drill, after grinding, by hand, observing the character of the chips, which should characterize a clean-cutting tool.

Baltimore Gets the Fever.

Baltimore, Md., is stirred up over the appearance of two motor bicycles recently received by rival dealers, one of them being Frank I. Clark, who was the first in that city to handle motor tricycles. Both of these motor bicycles have been much used on the streets since their arrival, and they have attracted an extraordinary amount of attention.

Well Mounted Messengers.

While their prototypes in other places may be mounted on nondescript bicycles, the American District messengers in Toledo, Ohio, are using bicycles of undoubted quality—the Pierce. The Union Supply Co., the Pierce agents in Toledo, brought about the arrangement.

As Philadelphia Sees it.

From a Philadelphia journal comes that oft-made statement that the trade will this year boom cycling by the simple expedient of hiring racing men by wholesale to ride their machines. Almost a column is devoted to the story, which is introduced in this fashion:

"Cycling will be given a boom during the coming season which will make this year one of the most memorable in the history of the wheel. Every branch of the sport will be fostered, and there is a probability that wheeling will be restored to its old position in the list of outdoor recreations.

"The big manufacturers of bicycles have come to the very wise conclusion that the sport will not boom itself, and the only way to get it back to some of its oldtime glory will be to push their shoulders to the wheel and help to put it to the front. Every branch of wheeling is to be promoted, and those interested in track racing, road racing and touring will be encouraged with aid from the manufacturers, who have decided that those are the best means of keeping up the interest in the sport."

Recent Incorporations.

New York, N. Y.—Straus Rubber and Tire Co., with \$25,000 capital. Directors, J. A. Straus, Alexander Straus and Annie Straus.

Buffalo, N. Y.—Finn & Sullivan Checking Co., with \$5,000 capital. Directors, J. T. Finn, E. F. Sullivan and J. E. Sharp, all of Buffalo.

Binghamton, N. Y.—The Binghamton Sectional Pneumatic Tire Co., with \$50,000 capital, to manufacture the Bingo tire. The officers are: President, George E. Green; vice-president, B. A. Baumann; secretary, R. D. Bundy; treasurer, F. J. Bauman; general manager, W. L. Bundy; superintendent, Charles Miller, of Auburn.

Osmond's bad Outlook.

Another British concern that has fallen upon evil days is the Osmond Cycle Co. Last year no report was made, although it was well known that there had been a considerable loss. The directors have just submitted a report for the two years ending in September last, which shows a loss of just under \$100,000. The outlook is rather discouraging, the cash on hand being \$225 and the debit and credit sides of the ledger being almost a standoff.

Has two Cylinders.

A new bottom bracket of German manufacture, and which is said to be very simple, is thus described:

"The bearing cups are in two cylinders which fit and screw together. The screwing of the cylinders regulates the bearing, which is simply pushed in the cycle frame, and acts quite independently. The whole arrangement can easily be unscrewed and cleaned, and every cyclist can assemble and fit it."

The manufacture of motor bicycles is being considered by Boller Bros., of Gowanda, N. Y.

TURNING OF THE TIDE

The Swan Songs are Ceasing and a Healthier Tone Pervades the air.

One of the noteworthy, not to say gratifying, signs of the times is the changed attitude of the daily press, or a part of it, toward bicycling. Instead of joining in the hue and cry raised about the decadence of the pastime, the better class of journals show a disposition to investigate the matter and state the truth concerning it. For example, the Hartford (Conn.) Courant said last week editorially:

"Soon after the pneumatic-tired bicycle made its appearance the world suddenly awoke to the fact that it was in possession of a new and wonderfully convenient means of locomotion, and began to make use of it with all possible haste. The modern wheel came upon humanity like an unannounced comet, and the subsequent pell-mell rush to take advantage of the benefits it offered has, in view of more recent conditions, been rather inaptly termed a craze.

"It is true that the newly found instrumentality, which made the human body a source of motive power many times stronger than that available in walking, proved irresistibly fascinating to multitudes of people, men and women, young and old; but its sudden spring into popularity was hardly of the craze character, if by craze is meant that sort of deranged enthusiasm which, without sense or reason, blindly takes up with this or that passing whim or freak of faddism.

"It was natural enough that the attractions of wheeling should prove so alluring that a great many young persons of both sexes for a time were more inclined to live to cycle than to use the cycle as an aid to improved living. There was some overdoing, no doubt, and there certainly was an inordinate amount of 'wheel talk'; but time has checked the overflow of enthusiasm, and the wheel has apparently settled into its permanent place among those necessary things of the mechanical kind provided to meet the increasing complexities of modern life.

"The lessened noise and stir over the bicycle and things pertaining thereto seem in some quarters to have created the impression that there has been a marked decline in its use. Close observation does not, however, sustain this view. In fact, the reverse appears to be the case. Information from reliable sources indicates that more bicycles are ridden now than at any previous time, and that the number in use is increasing at a rate that is very satisfactory to all who are appreciative of the numerous advantages derived from the wheel as a light, speedy and comparatively inexpensive vehicle adapted to many practical uses.

"The bicycle long since became too widely popular to remain a prescribed toy of society, but it is a noticeable fact that many

of the ultra fashionable still take their cycling as a matter of course for its own sake and for the healthfulness of the exercise. Entirely regardless of questions of social standing, age or sex, the wheel as an implement of necessary use, recreation and healthful exercise is in evidence throughout the length and breadth of the land.

"In some of the larger centres of population where cycling gained its first foothold the riders are less conspicuous than formerly; fewer of them are seen together on parkways and boulevards, there is less of parade and show in their doings as a class, and less century running and other extravagances on the part of individuals; but because the wheelmen of the present are less gregarious and more restrained than their predecessors it does not follow that there are not as many of them or more of them in the aggregate."

Where Coaster-Brakes Score.

No bicycle is to be allowed "to proceed in any street by inertia or momentum, with the feet of the rider removed from the pedals, but the rider may use his foot or his feet as a brake," says the New York City Municipal Assembly.

Such rules, which are in force in nearly all parks and in most cities and towns, have no terror for the coaster-brake rider. He coasts with impunity whenever he encounters favoring grades, but as he complies with the letter of the law by keeping his feet on the pedals he is never molested. Nor is there any reason why he should be, for he has his machine just as much under control when coasting as at any other time.

Pugh Wants African Business.

It is stated that C. Vernon Pugh, managing director of the Rudge-Whitworth Co., has gone to South Africa for the purpose of reorganizing his concern's business there. Evidently he regards the war as practically over and intends to get his share of the business that should come within a short time. This should be a hint to American makers, whose chance of getting trade in that far-away region should be at least equal to that of British makers.

Low Rates to the South.

Excursion tickets at reduced rates are now being sold by the Chicago, Milwaukee & St. Paul Railway to the prominent resorts in the South, including Jacksonville, Fla., Mobile, Ala., New Orleans, La., Savannah, Ga., El Paso, Tex., which are good for return passage at any time prior to June 1st, 1901. Information regarding rates, routes, time, etc., can be obtained on application to any coupon ticket agent of the Chicago, Milwaukee & St. Paul Railway. ***

Single Tube Tires.

Contracts for season's trade solicited at prices below Licenses. Protection guaranteed. Mineralized Rubber Co., 18 Cliff St., New York. ***

EVERY DEALER

HAS HEARD IT—

It runs something like this:

"Our Bicycle is of the highest possible grade. There is none better; there are few, if any, as good. Nothing that money can buy nor human effort evolve has been spared to make the ——— the very best bicycle on top of this grand old earth."

The manufacturer—his traveler—his catalog—his advertisement, each and all, and many of them, have again and again repeated the claim—the assertion, or whatever they may call it. The language may differ, but its tenor is the same.

TO TEST ITS TRUTH

Too often such claims are empty. They are made up mainly of words, warm breath and black ink. But there's a way of telling the false and the true—a way of finding out if words are empty or if they mean what they say. There's no question about the quality of the Persons saddle—there never was—there never will be, and

THERE'S

NOT A SQUARE MAN

IN THE TRADE

who does not know it or who will not admit it. For objects of his own he may quibble or "talk in circles," but that the Persons is the very pinnacle of saddle construction they all know and know only too well. The very saddle almost speaks for itself.

The point is right here: When a bicycle maker or his spokesman asserts the high gradeness of his product—when he asserts that in its construction and equipment no expense or effort is spared—when these claims are made, let the dealer test their truth; let him stipulate that Persons saddles be fitted to the bicycles he orders.

If they are given him without quibble, the dealer may be sure that the claims are true. If, instead, there is a quibble or a refusal, the moral is as plain.

The Persons saddle is made without regard to cost. Quality is placed above price. The bicycle manufacturer who does likewise cannot refuse the saddle when it is specified.

PUT HIM TO THE TEST.

Meanwhile we invite your inquiry.

The Persons Mfg. Co., Worcester, Mass

The Week's Patents.

669,097. Bicycle Tire. John A. Orr, Flor-
enville, La. Filed Jan. 8, 1900. Serial No.
678. (No model.)

Claim.—A bicycle tire comprising a tube
and a series of cork sections or cores filling
said tube, each having rounded or convex
end portions adapted to pivot one upon the
other, substantially as set forth.

669,124. Ball Bearing. August Riebe, Ber-
lin, Germany. Filed Oct. 22, 1900. Serial
No. 33,895. (No model.)

Claim.—1. In a ball bearing, the combina-
tion, with an inner ball race and an outer
ball race, one of the said races being pro-
vided with a lateral opening for the inser-
tion and removal of the balls; of a series
of balls arranged between the ball races, and
a screw inserted through the ball race pro-
vided with the said lateral opening radial to
the axle of the said races, and preventing
the balls from passing through the said open-
ing, substantially as set forth.

669,201. Bicycle. John G. Herr, Brook-
lyn, N. Y. Filed Sept. 23, 1899. Serial No.
731,467. (No model.)

Claim.—1. A vehicle comprising a frame
composed of two forks joined together by
braces as herein described, and of two posts,
a saddle post and a back post, joined to the
forks and to the braces; wheels rotably
mounted in bearings set in the ends of the
forks, a back rest set movably on the back
post and provided with extensions for sup-
porting the arms of the rider; a rack af-
fixed to the back rest; a spindle set parallel
to the back post and journaled in bearings
affixed thereto; a pinion set on the upper
end of the spindle and engaging with the
rack, a sprocket wheel set on the lower end
of the spindle, a sprocket flange set on the
stem of the forward fork, a chain stretched
over the sprocket wheel and the sprocket
flange of the fork stem; a driving wheel set
in the forward fork and means for propel-
ling the vehicle mounted on the axle of the
driving wheel.

669,237. Back-Pedalling Brake. William
S. Gubelman, Buffalo, N. Y., assignor to
John C. Conway, same place. Filed Aug. 21,
1900. Serial No. 27,572. (No model.)

Claim.—1. In a coaster-brake, the combi-
nation with a wheel hub provided with a

brake member or surface, of a driving wheel
mounted loosely on the hub and provided
with inwardly extending lugs or teeth, a
driving clutch connecting said wheel with
the hub and permitting the wheel hub to
turn forward independently of the driving
wheel, a non-rotary brake shoe movable tow-
ard and from the brake member of the hub,
a rotary brake-actuating sleeve provided
with lugs or teeth which extend into the
path of the lugs of the driving wheel, and a
shifting device interposed between said
sleeve and the brake shoe, whereby the shoe
is moved against said brake surface when
said sleeve is turned backward, substantially
as set forth.

669,389. Clamping Device for Bicycles.
James E. Gundry, Rankin, Mich. Filed Nov.
10, 1900. Serial No. 36,053. (No model.)

Claim.—In a clamping device for bicycles,
the combination with the telescopic-tube sec-
tions, the outer tube being split, of ears
projecting from said outer tube, each ear
being provided with a keyhole-shaped open-
ing and its outer side bevelled or inclined
around said opening; and a lever having a
straight portion adapted to pass through the
keyhole-shaped openings into the ears, and
a lug at the inner end of said straight por-
tion of the lever, the parts being connected,
as herein shown and described.

669,408. Carburetter for Petroleum Mo-
tors. Albert De Dion and Georges Bouton,
Puteaux, France. Filed June 8, 1900. Serial
No. 19,602. (No model.)

Claim.—In a carburetter for petroleum mo-
tors, the combination with the vaporizing
and oil chambers, the latter having its cover
formed with an upwardly extending neck, of
a guide rod secured within the said oil cham-
ber, a stop pin connected thereto, a float
provided with a central guiding tubular pro-
jection to permit of mounting upon said rod,
a cap in the top of said projection and ex-
tending above said float, a hollow casting
mounted upon the said neck, a gland secured
to said casting, a valve stem operating
through said gland, seated at its lower end
upon said cap and provided on its upper
end with a valve, a gland mounted upon
said casting, and means engaging the neck
of said cover and said gland for securing
the gland and casting to said cover.

669,414. Valve for Inflation. Roland C.

Hilton, New Bedford, Mass., assignor of one-
half to James M. Willis, jr., same place.
Filed Nov. 12, 1900. Serial No. 36,287. (No
model.)

Claim.—1. In a valve for inflation, the
combination of a chambered body internally
wider in its upper end having shoulders on
the inner face of its wall, a carrier within
the upper end of said body and having its in-
terior quadrangular, a screw-threaded plug
having its quadrangular portion within the
quadrangular interior of the valve-seat car-
rier, and a valve having its headed stem
passing through said valve-seat carrier and
through said plug, substantially as described.

669,416. Explosive Engine. Orville B.
Johnson, Tyngsboro, Mass. Filed Sept. 24,
1900. Serial No. 30,949. (No model.)

Claim.—1. An explosive engine compris-
ing a reciprocating member, such as a piston,
having a bearing face, a coupling member
jointed to the connecting rod or part which
receives motion from the piston and adapted
to stand at different angles with the connect-
ing rod, said coupling member having a com-
plemental bearing face, and a yielding con-
nection between the two members, whereby
a yielding contact is maintained between the
said bearing faces, one of said faces being
curved.

669,462. Bicycle Rest. Virgil A. Krepps,
White Plains, N. Y., assignor to James W.
Krepps, Brooklyn, N. Y. Filed June 25,
1900. Serial No. 21,500. (No model.)

Claim.—1. In a bicycle rest, a frame com-
prising two parallel plates spaced a fixed
distance apart by pins or rivets, having at
its upper end a crutch bar adapted for en-
gagement with a bicycle pedal, said plates
each having a longitudinal slot therein, two
of the spacing pins or rivets being arranged
on opposite sides of the slot and near its
lower end, and legs movably connected by
a movable pin arranged to travel in said
slots, said legs having their upper ends
adapted to rest against one of said spacing
pins or rivets when in extended position, and
adapted to fold upon the movable pin and
lie within said frame, substantially as de-
scribed.

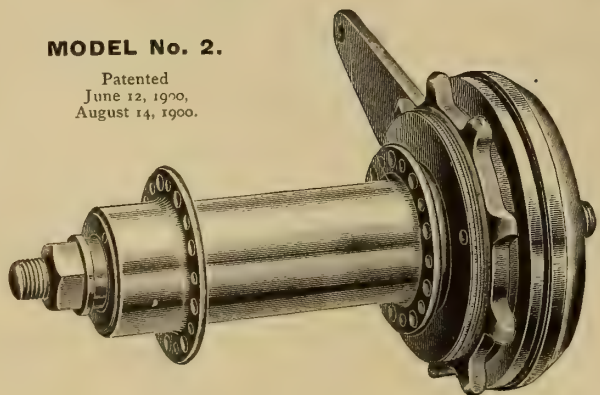
DESIGN PATENTS.

34,176. Lamp Body. William P. Crary,
New York, N. Y. Filed Jan. 24, 1900. Serial
No. 2,687. Term of patent, 7 years.

"E Z" COASTER BRAKE.

MODEL No. 2.

Patented
June 12, 1900,
August 14, 1900.

**SIMPLICITY**

LESS PARTS THAN ANY OTHER COASTER MADE.

With the "E Z" COASTER BRAKE fitted to your wheel all fear at once
leaves the most nervous person, for you are in position to stop the
wheel immediately—and always have it under control.

Your 1901 wheel should be fitted with the "E Z."

Any dealer can furnish it.

Send for Catalog "C."

Sole Manufacturers, REED & CURTIS MACHINE SCREW CO., Worcester, Mass.

Elfin
Bicycles

Spring Business Is Opening Up Briskly

According to the closest calculation we can make there will be about seven thousand more Juveniles sold this year than last and the enterprising dealer who handles the

**Standard
Juvenile
Of The World**
will get the lion's share of the business.

If he sells Elfin's he has every chance over his competitors in that he can show **REAL** advantages and **TRUTHFULLY** claim that it is the best Juvenile.

Our catalog contains a more complete description of the Elfin than we can give here. Send for it. Or ask to see our agent.

**Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.**

Big Week in Cycle Exports.

Last week (ending March 5) was one of unusual activity in the cycle export trade. Heavy shipments were the rule, Denmark topping the list with one valued at \$14,189. Sweden with \$10,165, and England, Germany, France, New Zealand, Australia, Africa, Norway, the East Indies and Italy each accounted for purchases of substantial proportions. The record in detail follows:

Antwerp—23 cases bicycles, \$285; 20 cases bicycle material, \$434.

Argentine Republic—17 cases bicycles and material, \$200.

British Possessions in Africa—63 cases bicycles and material, \$2,410.

Bremen—3 cases bicycles, \$75.

Brazil—2 cases bicycles and material, \$96.

British Australia—73 cases bicycle material, \$3,458.

Berne—6 cases bicycles, \$137.

British West Indies—11 cases bicycles and parts, \$535.

Cuba—1 case bicycles, \$51.

Christiania—83 cases bicycles, \$2,500; 1 case bicycle material, \$15.

Copenhagen—610 cases bicycles, \$9,528; 107 cases bicycle material, \$4,661.

Cologne—5 cases bicycle material, \$700.

Dutch East Indies—19 cases bicycles and material, \$2,178.

Dutch Guiana—15 cases bicycles and material, \$439.

Dusseldorf—1 case bicycles, \$25.

Gothenburg—7 cases bicycles, \$210.

Glasgow—2 cases bicycles, \$70.

Genoa—19 cases bicycles and material, \$1,859.

Ghent—1 case bicycles, \$20.

Hamburg—158 cases bicycles, \$5,766; 90 cases bicycle material, \$2,567.

Hayti—1 case bicycles, \$30.

Havre—476 cases bicycles, \$5,318; 26 cases bicycle material, \$1,286.

Leith—1 case bicycle material, \$44.

Liverpool—23 cases bicycles, \$625; 1 case bicycle material, \$275.

London—479 cases bicycles, \$4,134; 36 cases bicycle material, \$1,292.

Mexico—1 case bicycle material, \$16.

New Zealand—149 cases bicycles and material, \$4,503.

Rotterdam—107 cases bicycles, \$2,799; 23 cases bicycle material, \$1,354.

Southampton—1 case bicycles, \$28.

Stockholm—402 cases bicycles, \$10,165.

Smyrna—5 cases bicycles and material, \$401.

First in Honolulu.

The motor bicycle has reached Hawaii. The first of the sort—an Orient—was brought to the island by Whitman & Co., the Waltham Manufacturing Company's agents in Honolulu. That it is literally "astonishing the natives" goes without saying.

Want American Lines.

The Arlington Bicycle Co., of Montreal, Canada, is getting ready to handle motorcycle parts, and is open to propositions from American makers to handle their lines.

ORIENT
Mile-a-minute

Prize money for
1901 is obtained
like this:

Secure the Orient
Milaminit and
your competitors
will get—the leavings.

TAILORED
Orient
1901

Good and sufficient reasons why this is the finest chain wheel anyone ever produced will be immediately noticeable to you the moment the crate is opened.

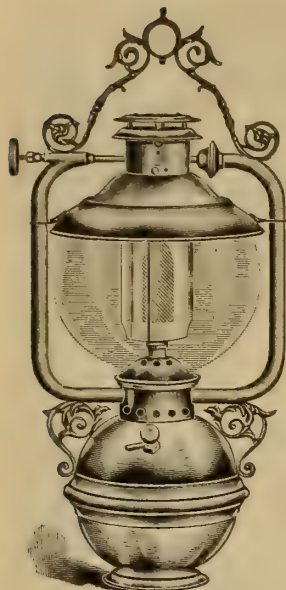
The finishing touches of this model machine make the full measure of bicycle perfection—style, speed, strength.

The Tailored Orient is an exclusive inducement—the Orient Leader is a fast friend—the Chainless Orient is unsurpassed.

Then why hesitate now?

WALTHAM MFG. CO.,
with a Waltham,
Motocycle Line. Mass.

ORIENT
"Leader"



Outdoor.

THE NULITE 750 CANDLE POWER ARC ILLUMINATORS

Produce the finest artificial light in the world.
SUPERIOR TO ELECTRICITY OR GAS
CHEAPER THAN KEROSENE OIL

A 20th Century Revolution in the Art of Lighting.

They darkness into daylight turn,
And air instead of money burn.

No Smoke. No Odor. No Noise. Absolutely Safe.
They are portable. Hang them anywhere.

WE ALSO MANUFACTURE

TABLE LAMPS, PENDANTS, WALL LAMPS,
CHANDELIERS, STREET LAMPS, ETC.

The BEST and only successful

Incandescent Vapor Gas Lamps

made. They sell at sight. Nothing like them

A SNAP FOR BICYCLE DEALERS.

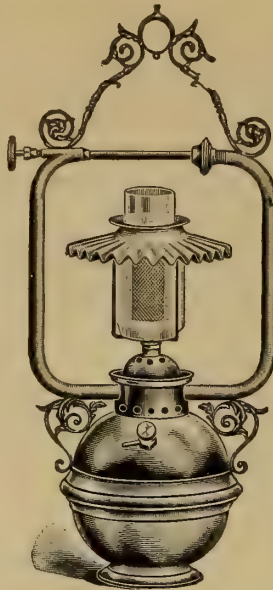
Agents wanted everywhere.

Write for catalogue and prices.

CHICAGO SOLAR LIGHT CO.,

56 FIFTH AVE.,

CHICAGO, ILL.



Indoor.

Don't you believe it!—There is no tool as good as **The Magic**, for we manufacture nothing else; therefore, we spend our time and give our



HAS A POINT ONLY $\frac{1}{16}$ IN. DIAMETER.

attention solely to the improvement of it, thereby easily keeping ahead of everything else in that line on the market. Try it and convince yourself of it's being the best repair tool for single tube tires that you ever saw or tried. Your jobber carries them. If not, write us. **THE MAGIC REPAIR TUBE CO.**, 250 Larrabee St., Chicago.

BICYCLE MOTOR CASTINGS

WITH BLUE PRINTS, \$8.50 AND \$12.50.

Also $1\frac{1}{4}$ and 3 h. p. Air-Cooled Motors.

4 H. P. DOUBLE CYLINDER AUTOMOBILE MOTORS,

Balanced type, with Water Jacketed Cylinders and Blue Prints.

CASTINGS IN ROUGH OR PARTLY MACHINED.

LOWELL MODEL CO.,

P. O. BOX 292. LOWELL, MASS.

IDEAL ADJUSTABLE BARS AND SADDLE POST.

Made of the best material, and finished and plated in the best possible manner.

Get our prices for 1901.

IDEAL PLATING CO., 3 Appleton St., Boston, Mass.

L. R. HALL

Enameling and Nickeling Co.

ENAMELING, NICKEL-PLATING

and VULCANIZING for the trade.

Carriage Tires
Our Specialty.

4 PORTLAND STREET
BOSTON.

HIGH GRADE

wheels must have the
best equipments.

There is nothing that gives more value for the money than the use of the

MORSE TWIN ROLLER CHAIN



NOISELESS IN MUD, WATER OR
DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless
Rocker Joints. Insist on having the
Morse Twin Roller. Fits regular
sprockets.

Send for Catalogue and
Trade Price to

Morse Chain Co., Trumansburg, N. Y.

DON'T EXPERIMENT!



Use the
well-known

"Fleming" Motor

on your Motorcycle.

Fleming Motor Vehicle Co.,

93-97 Elizabeth St., New York, U. S. A.

20th Century

OIL and
GAS

Bicycle, Driving and Automobile
HEAD-LIGHTS.

For sale by all jobbers and dealers.
20th Century brand of Carbide.

WANTS AND FOR SALE.

15 cents per line of seven words, cash with order.

WANTED. Second-hand Crawford wheels and Combination Tandem, in good condition. CYCLE EMPORIUM, LEXINGTON, O. T.

WANTED. Man who understands repairing clocks and bicycles. Lock Box 28, Madalin Postoffice, Dutchess county, N. Y.

FOR SALE Three new Economic Braziers' \$27.00 each to close out. Regular price is \$45.00. ECONOMIC FORGE CO., 133 Merrimack St., Lowell, Mass.

HAND AND FOOT PUMPS,

Oilers, Repair Tools,
Valves, Name-plates, etc.

Spelter Solder

Sheet Brass,
Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn.

Depots: 210 Lake St., Chicago.

423 Broome St., New York.

PATEE MOTOR CYCLES, \$200.



count. WRITE US.

PATEE BICYCLE CO., Indianapolis, Ind., U. S. A.

No other make of Motor Cycle can maintain a speed anywhere near equal to this wonderful machine. It is light, strong, serviceable and reliable. Will go every time, any time and all the time. No experiment, no plaything, fully guaranteed. Money refunded if not as described. Big trade discount.

WOLFF-AMERICAN BICYCLES.

STEARNS BICYCLE AGENCY, - Syracuse, N. Y.



THE NEW "AUTO" BICYCLE PUMP.

Patented Oct. 9th, 1900. The barrel is 15 inches long and 1 inch in diameter. Will inflate the heaviest automobile tire. Provided with our patented air tight swivel. Has solid base and will stand alone. The finest and strongest pump made. Sample sent on approval. Electrotypes for catalogues furnished free. Handled by all jobbers. Mention this paper.

D. B. SMITH & CO., Utica, N. Y., U. S. A.

Hubbard and his Hobby.

There may have been folly in having had introduced in the Connecticut Legislature recently a bill providing for the construction of an extensive system of sidepaths for cyclists, as is claimed in many quarters, but the author of the bill, J. M. Hubbard, writes himself anything but a fool in presenting his view of the matter.

"With more wheels than dwellings in the State," he says, "and thousand of families which own no other road vehicle and yet pay thousands of dollars which go for the maintenance of roads it seems to me exceedingly unjust that this large part of the community should be compelled at all times and under all circumstances to use a part of the highway in common with other vehicles.

"Given a path of its own, a wheel could be used at all times throughout the year, except when snow was on the ground, and the cost of such a path is so small to begin with, and so very little for maintenance, that nothing but the most consummate selfishness would object to the public ownership of such paths.

"And yet it is a notorious fact that not one dollar of public money has been spent in most towns to provide rideable paths. It is even possible that not one dollar has yet been expended in this State for that purpose. Taking into consideration the great number of wheels in use, it is simply astonishing that nothing has been done for their needs."

Chicago and Cincinnati.

The Monon Route and C. H. & D. R'y run four trains daily from Chicago to Cincinnati. The day trains leave Dearborn Station, Chicago, at 8:30 A. M. and 11:45 A. M., and are equipped with elegant Parlor and Dining cars. The Night trains leave at 8:30 P. M. and 2:45 A. M. These trains are equipped with elegant sleepers and compartment cars, the sleepers on the latter train being ready for occupancy at 9:30 P. M. City Ticket Office, 232 S. Clark St., Chicago. ***

NEW SYSTEM

of Gasolene Engine Ignition, "Autogas" Dry Battery, double porcelain insulated Ignition Plug, Secondary Coil, etc.

WILL SEND

1/3 DOZ. of my Automobile Dry Battery anywhere, f. o. b. New York, **FOR \$3.**

Write to-day for circulars, and mention Bicycling World.

WILLIAM ROCHE,

Inventor and Sole Manufacturer of New Standard Specialties,
42 VESEY STREET, NEW YORK CITY.

Sheet Steel Bicycle Parts.

All Kinds of Metal
Stamping

THE CROSBY COMPANY, Buffalo, N.Y.

When the Metric System Comes in.

In that long-awaited-for and much-to-be-desired time when the metric system of weights and measures shall have been legalized and adopted unofficially as well as officially in this country, little or no trouble will be experienced in finding the equivalents between the new and the old standard.

During the discussion which will be an almost necessary preliminary to this adoption of the system the general public will attain a pretty fair idea of it. Even now those who have given the subject any thought know that, for example, a kilometre is a little more than half a mile, and that 1,000 kilograms make a ton of 2,240 pounds. Beyond this, however, they are rather hazy on the subject, and would have to look up the authorities before hazarding an opinion.

A table giving the equivalents of the principal weights and measures has been compiled, and they work out as follows:

1 kilometre.	=0.62 mile, or roughly 5/8 mile
1 metre.	=3.28 feet.
1 centimetre.	=0.394 inch.
1 kilogram.	=2.2 lbs.
50 kilos.	=1 cwt.
500 kilos.	=1 ton.
1 litre.	=0.22 gallon.
4 1/2 litres.	=1 gallon roughly.

Will Appeal to Millions.

So enthusiastic a motocyclist has Jo. Pennell become that he is about to start on

another long tour, this time to Italy. He takes a decidedly optimistic view of the motor bicycle's future. He stated recently that he believed that it "would appeal to thousands, probably millions, just as the ordinary bicycle did. It added a new pleasure to life, for many people who at present were too old or too lazy to cycle up hills, by means of the motor bicycle could easily accomplish that end."

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

If we spent

\$1,000,000

in advertising some people would still use cheap and leaky oilers. Spend a few cents more and get a **"PERFECT"** Pocket Oiler. You will be well repaid.



25c.

CUSHMAN & DENISON, Mfrs.,
240-242 West 23d Street, New York.

If

You are Interested
in Automobiles,

THE MOTOR WORLD

Will Interest You.

IT'S NOT LIKE THE OTHER KIND.

It's readable,
and you can understand what you read.

Published Every Thursday
at 123-5 Tribune Building, New York.

\$2 per Year.

Specimen Copies Gratis.

MORROW
COASTER AND BRAKE.

Over 100,000 Sold
Last Year.

Everyone Giving Satisfactory
Service.

Make Your Cycle Saleable and
Desirable by Fitting it with
the MORROW.

ECLIPSE MFG. CO., ELMIRA, N. Y.

NEW YORK BRANCH:
105-107 Chambers Street.

NEVERLEAK

STOPS LARGE PUNCTURES.

This is the only fluid that can be legally used in pneumatic tires. Suits now pending.

BUFFALO SPECIALTY MFG. CO.,
Buffalo, N. Y.

FAST TRAINS

Chicago & North-Western Ry.

The Overland Limited

California in 3 days

The Colorado Special

One night to Denver

The Chicago-Portland Special

Oregon and Washington in 3 days

The North-Western Limited

Electric Lighted—Chicago,
St. Paul and Minneapolis

Duluth and St. Paul Fast Mail

Fast train to head of lakes

The Peninsula Express

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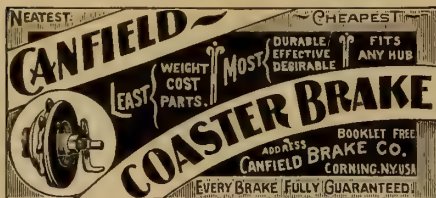
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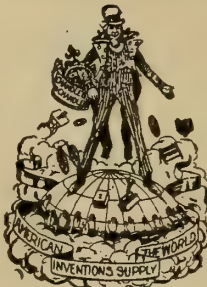
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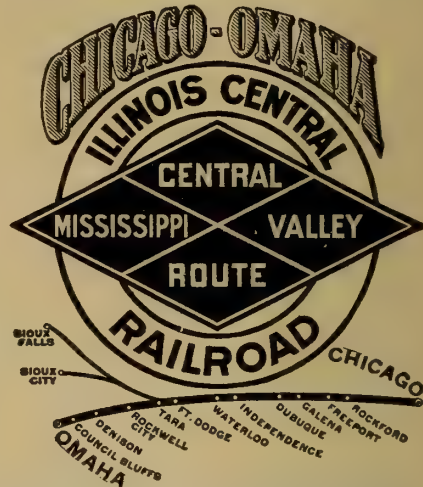
Many have made fortunes from simple inventions.

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AUTOMOBILES

WHAT ARE THEY AND
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Is carefully answered without the use of technical language and a reliable directory of makers of motor-vehicles and their parts is given in a special number of

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The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., March 21, 1901.

No. 25

A. B. C. SHOW-DOWN

**Listing of its Stock on Change Unlocks
Facts and Figures That Should Shed
Light in Several Directions.**

After hewing closely to the "If at first you don't succeed" maxim, the American Bicycle Company has finally had its securities listed by the New York Stock Exchange.

They were placed on the board last week, and the bonds at once developed strength; the preferred and common stocks, however, are sagging almost as badly as when they were hawked on the "curb." On Tuesday of this week the quotations were as follows:
Bonds, 80¼; preferred, 26½; common, 6.

Apart from the fact that the A. B. C. securities finally passed muster, its application developed many items and figures of trade-wide interest. The amount of its scrip actually issued was shown to be as follows:

Common stock.....	\$17,701,500
Preferred stock, 7 per cent cumulative.....	9,294,900
Five per cent gold debentures of 1919	9,243,000

The par of stocks is \$100 per share in each case. The authorized capital is \$35,000,000 7 per cent preferred stock and \$45,000,000 of common stock.

The quick capital account of the company on November 1, 1900, is given as follows:

QUICK ASSETS.

Cash	\$733,110 80
Accounts and notes receivable	4,765,384 87
Merchandise and material	5,865,748 97
Investments	1,909,700 00
	\$13,273,944 64

CURRENT LIABILITIES.

Accounts payable ..	\$125,579 00
Notes payable.....	1,211,529 04
Factory bonds and mortgages	82,000 00
	\$1,419,108 04

Net quick assets

The net quick assets, it is explained, are entirely outside of the company's land, building, machinery and patents, which latter represent the value of the preferred and common stock.

GROSS SALES AND NET PROFITS.

The net profit of the company for the ten months ended July 31, 1900, after interest had been paid on the bonds, was \$605,579 71, as was reported at the annual meeting in October last. The gross sales for the ten months, which were not made public at that time, are now stated to have been \$13,780,228 00.

At this rate the earnings for a full year would a little more than meet the dividend requirements on the preferred stock. No dividend, however, has been paid on that issue.

JUST WHAT IS OWNED.

The plants owned by the company are as follows:

Class "A" (Those which sold and conveyed both personal property and fee to real estate)—Acme Manufacturing Co., Reading, Pa.; Ames & Frost Co., Chicago, Ill.; Black Manufacturing Co., Erie, Pa.; Buffalo Cycle Manufacturing Co., Buffalo, N. Y.; Crawford Manufacturing Co., Hagerstown, Md.; A. Featherstone & Co., Chicago, Ill.; Fay Manufacturing Co., Elyria, O.; Gormully & Jefferey Manufacturing Co., Chicago, Ill.; Indiana Bicycle Co., Indianapolis, Ind.; Lozier Manufacturing Co., Westfield, Mass.; Lozier Manufacturing Co., Thompsonville, Conn.; Lozier Manufacturing Co., Toledo, O.; Milwaukee Manufacturing Co., Milwaukee, Wis.; A. D. Meiselbach, North Milwaukee, Wis.; North Buffalo Wheel Co., Buffalo, N. Y.; Pope Manufacturing Co., Hartford, Conn.; Hartford Cycle Co., Hartford, Conn.; E. C. Stearns & Co., Syracuse, N. Y.; Shelby Cycle Manufacturing Co., Shelby, O.; Viking Manufacturing Co., Toledo, O., and H. A. Christy & Co., West Harvey, Ill.

Class "B" (Those which sold personal property, but no real estate)—Barnes Cycle Co., Syracuse, N. Y.; Columbus Bicycle Co., Columbus, O.; Fanning Cycle Manufacturing Co., Chicago, Ill.; Monarch Cycle Manufacturing Co., Chicago, Ill.; Milwaukee Engineering Co., Milwaukee, Wis.; Nuttall Manufacturing Co., Nyack, N. Y.; Syracuse Cycle Co., Syracuse, N. Y.; Stover Bicycle Manufacturing Co., Freeport, Ill.; Western Wheel Works, Chicago, Ill., and Christy Saddle Co., New York.

FACTORIES THAT HAVE BEEN SOLD.

In addition the company has owned the following, which have since been sold: American Saddle Company, Elyria, O.; Ball and Pedal Factory, Cleveland, O.; C. J. Smith & Sons' Company, Milwaukee, Wis.; Colton Cycle Co., Toledo, O.; E. C. Stearns & Co., Toronto, Can.; Fay Manufacturing Company, Elyria, O. (only one small building standing on leased ground was sold); Geneva Cycle Company, Geneva, O.; George

ALLEGES DOUBLE-CROSS

**Canadian Trust Promoters Fall out and
Odoriferous Proceedings Result.**

Across the border, the promoters of the deal that resulted in the formation of the Canada Cycle and Motor Co. have fallen out, and the court has been called on to help cleanse the linen.

F. S. Evans, of Windsor, Ont., is the offended party who has instituted the proceedings. In substance, and in the language of the short-haired fraternity, he claims that his fellow promoter, R. M. Jaffray, now of Toronto, but formerly of Chicago, worked the "double cross" on him, aided and abetted by F. B. Ryckman and the Hon. George Cox, also of Toronto.

According to the Evans complaint, in 1899, he and Jaffray agreed to form a combine of the different bicycle concerns of the dominion and charter a company for the purpose of controlling the output of wheels in Canada. Evans says it was agreed that Jaffray should approach the different bicycle firms and secure figures at which they would sell out. He did so and secured option on the Welland-Vale Manufacturing Co., Gould Bicycle Co., Brantford; Gendron Bicycle Co., Toronto; the H. A. Lozier Co., Cleveland, O.; Massey-Harris Co., Toronto; Canadian Typograph Co., Windsor. It was decided to purchase these concerns, which would cost about \$900,000. Then Jaffray and Evans, so it is alleged, were to dispose of this business to a trust, and they figured on making a profit of \$100,000.

Evans goes on to state that about this time his partner, Jaffray, commenced negotiations with E. B. Ryckman and Hon. George A. Cox, of Toronto, for the purchase of the bicycle concerns on which options were held. Ryckman and Cox learned of the deal which Evans and Jaffray were trying to put through and, Evans alleges, they made a proposal to Jaffray to drop Evans and let them in on the deal. This, it is averred, was done, and the three defendants formed the Canada Cycle and Motor Co. (Limited), of Toronto, with a capital stock of \$6,000,000. This stock was divided into \$2,000,000 in preferred shares and \$3,000,000 common stock. The company took up all the capital but \$500,000 in preferred shares, which amount was placed in the bank. Afterward, it is said, these shares were disposed of at par value. For his share in the transaction Jaffray, it is alleged, received \$75,000.

Evans brings the action against Jaffray for damages and breach of contract, and for damages against Ryckman and Cox for the alleged malicious procuring of the breach of contract by the defendant, Jaffray, as against the plaintiff, and for conspiracy.

(Continued on next page.)

A. B. C. Show-down.

(Continued from page 693)

L. Thompson Manufacturing Co., Chicago, Ill.; Grand Rapids Cycle Co., Grand Rapids, Mich.; Hartford Rubber Works Co., Hartford, Conn.; Hart & Cooley Manufacturing Company, South Chicago, Ill.; H. A. Christy & Co., Walkerville, Ont.; Indiana Novelty and Manufacturing Co., Plymouth, Ind.; Indianapolis Chain and Stamping Co., Indianapolis, Ind. (all of which have been transferred to the Automobile and Cycle Parts Co. as explained below); Indianapolis Rubber Co., Indianapolis, Ind.; Lamb Manufacturing Co., Chicopee Falls, Mass. (a small portion of the land and three small buildings not in use were sold); Peoria Rubber and Manufacturing Company, Peoria, Ill.; rubber manufacturing department of Indiana Bicycle Co., and Sterling Cycle Works, Kenosha, Wis.

WHY THEY WERE SOLD.

"Of the above factories sold," continues the application, "all except those specified below were sold for the purpose of concentrating the business previously done there in our other factories, where it could be done more economically and with better results to the company. As to the remainder specified among the factories sold the transaction was this, viz., the factories of the American Saddle Co., Geo. L. Thompson Co., C. J. Smith & Sons Co., Ball and Pedal Factory, Hart & Cooley Co. and Indianapolis Chain and Stamping Co. were sold and conveyed to the Automobile and Cycle Parts Company, a corporation organized under the laws of the State of New Jersey, the par value of whose shares is \$100, and whose authorized capital stock is \$5,000,000 common stock. Of this amount there has been issued \$3,157,500

par value, our company receiving in payment for the last above mentioned factories \$3,000,000 par value of this issued stock.

"These factories did not manufacture bicycles, but only bicycle accessories and parts, a separate department of the business.

"Leases which we held to the following factories have expired and have not been renewed, because these factories were not required in the conduct of the business of the company: Barnes Cycle Company, Columbus Bicycle Company, Fanning Cycle Manufacturing Company, Nuttall Manufacturing Company, Stover Bicycle Manufacturing Company and Christy Saddle Company.

"The following factories have been closed and are idle: Buffalo Cycle Manufacturing Company, Fay Manufacturing Company and Viking Manufacturing Company.

PLANTS IDLE AND LEASED.

"The following factories owned by this company have been leased by it for other purposes than the manufacture of bicycles or anything relating to bicycles: Lamb Manufacturing Company, Chicopee Falls, Mass. (portion only); Lozier Manufacturing Company, Thompsonville, Conn.; Milwaukee Manufacturing Company, Milwaukee, Wis.; Hartford Cycle Company, Hartford, Conn.; E. C. Stearns & Co., Syracuse, N. Y.; H. A. Christy & Co., West Harvey, Ill., and North Buffalo Wheel Company, Buffalo, N. Y.

RECEIPTS FROM SALES OF PLANTS.

"The company has received from sale of the foregoing properties:

Cash\$3,037,053 41

Capital stock of Automobile and Cycle Parts Co. 3,000,000 00
Capital stock of American Wood Rim Co. 146,000 00
First mortgage on real estate Grand Rapids, Mich. 15,000 00

Total\$6,198,053 41
Received from sales of machinery, etc. 260,417 74

"The \$3,000,000 of stock of the Automobile and Cycle Parts Company issued to the American Bicycle Company is held in its treasury and cannot be sold except by vote of directors ratified by stockholders.

ITS WOOD RIM HOLDINGS.

"The American Wood Rim Company is organized under the laws of West Virginia, with authorized capital of \$500,000; whole amount of stock issued, \$450,000; par value of shares, \$100. The American Bicycle Company is represented on the board of directors by two of the five directors constituting the board."

The company holds in its treasury the following amounts of its issued capital:

Seven per cent cumulative pref'd stock\$705,100 00
Common stock 2,298,500 00
Five per cent sinking fund gold deb. 757,000 00

ITS CAPACITY AND CLAIM

The application for listing further states that the company manufactures fully 65 per cent of the bicycles made in the United States, the annual output varying with the demand of the trade, but the capacity being 1,000,000 complete machines per annum and 12,000 automobiles of various descriptions in addition.

Will Flake Mixers and Mufflers.

Emil Hafelfinger, whose motor bicycle created such a sensation at the New York Cycle Show, and the well known Will R. Pitman have formed the Hafelfinger Motor Bicycle Co., with a temporary office in Weehawken, N. J.

For the present they will deal only with the Hafelfinger mixing valve, muffler, sparking plug, battery and coil; later, complete motor bicycles will be taken up.

Meanwhile, the mixer and the muffler are so marvelously simple and effective that it does not seem they can fail of wide interest and demand.

Rowe in Business for Himself.

William A. Rowe, successor to Wright & Ditson, is the sign which now graces the store at 36 Andrew street, Lynn, Mass., thus illustrating the hold which cycling continues to have on its votaries of the early days. The ex-champion of the path was for a long time a salesman in Wright & Ditson's Boston store, meanwhile residing at Lynn, which is but a short distance away. He had a formal opening of the store—which is described as being one of the largest and handsomest in the town—last week, and expects a good season.

Keating Wants Good Price.

The magnificent Keating plant at Middletown, Conn., is still being held at a good price, which is not at all remarkable when its adaptability for manufacturing purposes is considered. Another offer, this time amounting to \$100,000, is said to have been made for it, presumably by an automobile company, but it is not likely to be accepted, according to those interested in its sale.

One man who has been very closely identified with the business ever since it was brought from Holyoke is quoted as saying: "It is possible that an offer of \$150,000 might receive some consideration, but it is safe to say that any offer of an amount less than that will not be even considered. The plant cost nearly double that amount, and as it has not depreciated in value as a manufacturing plant since it was built there is no probability of its being sold for less than half what it is worth. The general opinion here is that the factory will be occupied by some large company before July 1."

Snell's Suit in Assumpsit.

At Jackson, Mich., last week, the Snell Cycle Fittings Co. commenced suit in the Circuit Court in Assumpsit against the Jackson Automatic Coaster and Brake Co. to collect a claim of \$1,000.

Doing of Dunkirk Dealers.

At a meeting held last week, the dealers and repairers of Dunkirk, N. Y., formed an association under the name of the Bicycle Repairers' Union, of Chautauqua County. The objects of the organization are stated to be to "maintain uniformity of prices and to prevent reduction of present repair rates."

The following were present and became members: Alling & Fields, J. Conn, Fellows & Fray, S. R. Cole and Charles Pugh, of Dunkirk, and Spencer, Lord & Co., of Fredonia.

Appointed a Permanent Receiver.

Justice Scott, of the Supreme Court, sitting in New York City, last week granted an order dissolving the Dean Tire Co., formerly a manufacturer of rubber bicycle tires at 25 Warren street, and appointed Wilber McBride permanent receiver. He was appointed temporary receiver in July, 1897.

Will Separate Corbin Interests.

It is probable that the screw and coaster brake interests of the P. & F. Corbin Co., New Britain, Conn., will be organized into a separate company. At the annual meeting last week the directors were authorized to take such action if they deemed it best to do so.

TIRE FLUID FIGHT

Default in One Suit but Each Side Claims Chip is on its Shoulder.

When the Buffalo Specialty Manufacturing Company notified the public of their ownership of the Duryea tire fluid patent they refused to grant licenses to any one, although they reported that many makers of compounds were willing to pay them royalties. Their refusal resulted in an association of seven manufacturers joining together for the purpose of defending the suits the Buffalo Specialty Mfg. Co. threatened to institute.

In due time a suit under the Duryea patent was instituted by the Buffalo Specialty Mfg. Co. against W. G. Shack, a customer of a member of the association, and Steuart & Steuart, patent attorneys, of New York, acting for the association, defended the action. Evidence by both sides was put in, and according to the Buffalo people it developed that the principal defence introduced by the association's attorneys was a certain patent issued in 1890 to one Seth Curlin, and covering the use of a liquid in inflatable pneumatic goods, particularly canvas decoy ducks; thereupon the Buffalo Specialty Mfg. Co. instituted a second suit against the same party, this time under the Curlin patent, which it seems they had owned for two years and kept in the background. The Buffalo people now believe that the "combination" has abandoned the fight, as Steuart & Steuart failed to put in an appearance in the last suit, and the Buffalo Specialty Mfg. Co. have secured a judgment by default in consequence.

The Buffalo Specialty Mfg. Co. now say they purpose commencing suits directly against dealers whom they find using or handling any tire fluids not made by them, no matter where such dealers may be located, and that they (Buffalo Specialty Mfg. Co.) will not hereafter lose time by waiting for the result of any one suit as a test, because it might result in another default on the part of the defendants.

When a New York member of the Association was asked concerning that organization's present attitude he acknowledged that no defense had been made to the suit involving the Curlin patent, "for the very good reason," he went on, "that that patent expressly applies to the use of liquid in inflatable decoy ducks and in nothing else."

"We emphatically have not abandoned the suit involving the Duryea patent," he continued. "We are ready to argue the case whenever the Buffalo parties are. It is no fault of ours that the suit has not come to trial long ago."

Robey on Middle West Situation.

George T. Robey, president of the Excelsior Supply Company, Chicago, is among the trade visitors in New York this week.

The Middle West being essentially "Excelsior territory," Mr. Robey was asked concerning the reports and the general impression that the cycle trade in that section of the country was more backward than in the East or the Far West.

"I know that that idea is abroad," said Mr. Robey, "and there is a semblance of truth in it, but it is truth that gains color because of the changed conditions that prevail. The buyers of the Middle West were always large buyers. They gave orders for big quantities—for carload lots—and took long chances. They are doing so no longer. They are now buying rationally, and not dealing so heavily in futures. The orders are not so large, but the buyers are taking more advantage of their discounts than ever before. When this is not taken into account the Middle West, of course, appears backward. But if the volume of business is less it is safer and in every way more satisfactory."

Jangling of a Bell law.

That piece of legislative patchwork, the Collins bill, against the enactment of which the *Bicycling World* so earnestly but unavailingly protested, is returning to vex the authorities as was prophesied.

A shrewd New York lawyer saw its weakness and made the most of it. He appeared in defense of several wheelmen who were gathered in by the police on Sunday last for riding without bells affixed to their bicycles. He quoted from the law that riders "must give an alarm by bell, whistle, or otherwise," and contended that the use of bells was purely optional with the riders themselves, the elastic term "otherwise" giving them scope to sound an alarm in any way that suited their pleasure. The judge was non-plussed and reserved his decision until he could consult his law books.

Meanwhile Chief Consul Belding, of the L. A. W., has thrown himself into the breach and declared in favor of whistles. He says they were used ten years ago but forgets to say that they became such a nuisance to police and public that they were suppressed.

Western Jobbers Create an Issue.

In the country beyond the Mississippi the jobbers who sell only to the trade appear to be making the fact an issue. They appeal to the dealer on the ground that, unlike competitors, they do not sell at retail, and do not, therefore, compete with their customers.

W. M. Wyeth, head of the Wyeth Hardware and Mfg. Co., St. Joseph, Mo., is dead, after an illness of ten weeks. He was aged 69 years, and leaves one son, the vice president of the company, which is a factor in the cycle jobbing trade of the West.

AKRON VS. HARTFORD

Another Serious but Amusing Situation Narrowly Averted in the Tire Trade.

If ever there is written the inside history of the tire situation as it has prevailed during the past few months, it will make unusually interesting reading. Affairs have been strained to the snapping point, and if the history is truthfully written it will be punctured with some pretty strong language and detail, as well, as some amusing situations.

One of these situations has just been relieved, and it forms such an interesting chapter that its publication can do no harm.

Akron, in Ohio, as every one knows, has been one of the seats of disturbance. Hartford, in Connecticut, has been another one. The sparks that have passed between them have been fat and warm, and have been generated without the use of wires or contact breakers.

Out of the heat thus developed there grew a tire branded "Akron," but fathered by the Hartford parties to the controversy. It was what the Akron makers themselves termed a "cheap tire" and a reflection on their reputations. They charged that it was brought out to injure the interests and sale of the tires made in Akron.

There was a deal of fretting and fuming, followed by action. The action took form in an Akron-made tire branded "Hartford." It was a "cheap tire" and they did not deny it, but they argued that they must fight fire with fire, and they were making ready to fight it out on that line when a dove of peace appeared.

From whose particular cote it came does not matter, and does not effect the story. The dove simply appeared and proffered its olive branch. Both parties to the rumpus fell under its influence, and as a result, the "Akron" tire and the "Hartford" one will cease to trouble. Both have been withdrawn, and a more embittered fight averted; there are signs and hopes, too, that the dove's influence will carry further and terminate the conditions that have set the entire tire trade at sixes and sevens.

For a State Lamp law.

On Tuesday of this week Assemblyman Doughty introduced in the New York Legislature a bill to require the use of lighted lamps on any rubber-tired vehicle, on the public roads of this State at any time between one hour after sunset and one-half hour before sunrise. The act imposes a fine of \$5 for each violation.

The Shelby tube mill in Hartford has again been ordered to shut down. It is not known when, if ever, it will be restarted.

NEVERLEAK PATENTS WIN!

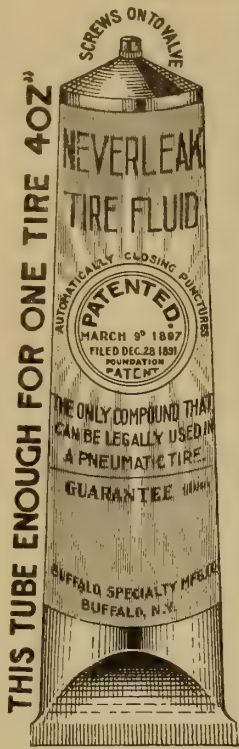
To our Friends:

We wish to notify you that the great (?) "Combination" have abandoned their fight in the United States Court against our Neverleak Patents, and that judgment is about to be granted us in our last suit, by default.

As the whole "Combination" were back of this, and as they have been loud in their statements and guarantees that their attorneys, Messrs. Steuart & Steuart, would defend any action we might bring, we had hoped that the suit would be defended and a test case had, in order to satisfy the public.

The "Combination" by failing to defend this suit have left us but one course to pursue, and that is to commence suits against each and every dealer who persists in handling infringing goods, instead of losing time waiting for the decision in one action with the probability of their again abandoning the defense before a decision is reached. Our attorneys are now acting on those lines. Look for further interesting developments.

BUFFALO SPECIALTY MFG. CO., BUFFALO, N. Y.



4 oz Tube with valve connection. Treats one tire.



Half pint Can. Treats two tires.

Fisk Tires

Busy as a Beehive

is this factory of ours. We are working like good fellows night and day to keep up with the ever-increasing demand for Fisk Tires.

Yet, with all this hustle and bustle, worry and flurry, we do not slight our product, never allow a tire to go out that is not up to the "Fisk" standard—which means the best tire possible to mould.

All sorts of tires for all sorts of uses—but only one grade.

Ride Fisk Tires and stop worrying.

Sell Fisk Tires and rejuvenate your trade.

FISK RUBBER COMPANY, Chicopee Falls, Mass.

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THE BICYCLING WORLD

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and MOTORCYCLE REVIEW

In which is Incorporated
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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, MARCH 21, 1901.

Inter-Help of Maker and Dealer.

The time was when the success of the retail season depended quite as much on the maker as on the dealer.

If the former was able to make prompt deliveries he rarely needed to bother his head about sales. The dealer always took care of that part of the business, and his only prayer was that shipments should be made on time.

Nowadays all this is changed. As there is no longer any excuse for non-delivery on the part of the maker, so there rarely exists any necessity for one.

Only the most egregious stupidity or lack of foresight can now cause delay at that end. Even when, as is frequently the case, the dealer is remiss in specifying and giving shipping directions, it takes but a short time to repair the omission and get ample supplies.

Much of this—most of it, in fact—is due to the lessening of the demand; the remainder is accounted for by the better facilities for

quick deliveries now possessed by the various factories.

As it stands now, therefore, the success or failure of the season depends entirely upon the retailer. If for any reason—whether beyond his control or not—he is unable to dispose of the greater part of the bicycles poured out in such abundance and placed at his disposal, then failure follows fast, and no attempt to gloss it over will avail.

This being so, the problem is how to strengthen the dealers' hands. It is not only unfair to expect them to do all the merchandising, to advertise the goods, create a demand for them and then dispose of them; it is a manifest impossibility.

It will be said that the makers do all they can to help the dealers; that the big expenditures of the past are no longer possible in the present condition of the business. This is true. But at the same time the dealer can be helped, and in ways that are never even thought of, although they would accomplish much good.

A carefully mapped out campaign is conducted by the maker for the purpose of selling goods to the dealer, and then, unmindful that the work is only half done, the travellers are withdrawn and the dealers are left to dispose of the machines as best they can.

If the view were taken that it is just as incumbent on the maker to help the dealer sell bicycles as it is to induce him to buy them, a decided improvement would undoubtedly take place.

Great Britain's Bugaboo.

The Cycle Trader "learns from a gentleman who has just returned from the States" that within the next couple of months England will have 100,000 cycles of last year's make landed on its shores from America.

To this information the Cycle Trader couples some complimentary reference to the "wretched condition" of our trade, to the "absurd extent" to which we are overstocked, and to the "big talk in which Americans habitually indulge."

At the most absurd valuations, 100,000 bicycles would mean that our exports to Great Britain would more than double themselves, an anticipation more pleasant than probable.

The "big talk" therefore arises from the Cycle Trader and its informant; they have rushed into print without figuring.

For the information of our "gentle cousins" we may tell them that one of the very largest shipments of American cycles

that is likely to reach their shores will come not from the overstocked concern in question, but from an "independent" manufacturer whose plant was destroyed by fire last fall, and who is, perforce, turning out new and up-to-date stock and nothing else.

Decadences of "Cheapness."

Extremes are so frequently resorted to by thinking and unthinking majorities that it becomes a difficult task for them to return to the happy mean, which is, after all, so much more satisfactory.

A good illustration of this is found in the average dealer's changing viewpoint in the matter of sales. In a comparatively brief period he passed from one extreme to another, adopting a policy diametrically opposed to the time-honored one he had pursued so long.

At first he set himself the task of selecting the class of machines the rider should buy, and, this done, proceeded to convince his customer that his view of the matter was the correct one.

Buy the best, he said, and then proceeded to point out, in, as he thought, irrefutable terms, why this was the only safe course. You do the work, he added, and the easiest running and most durable and reliable machine is the only one you should think of buying, and this will prove to be the best policy in the end.

In making these arguments the dealer was undoubtedly honest, and his years of experience bore out his assertions. Furthermore, he was standing in his own light in taking this stand.

The cheaper wheels were just as easy to sell, and the profit in them was frequently greater than in the higher-priced machines. Not only this, but the tide was setting stronger and stronger in the direction of cheapness, and efforts to stay it were becoming more and more hopeless.

Having stood out as long as possible, and longer than a regard for his interests demanded, he bowed to the storm. From being too stiff-necked in upholding price and grade, he went to the other extreme and became as pliable as he had before been the reverse.

If it is cheap bicycles the public want, he said in effect, I will give them such machines. I will meet the department stores at their own game—sell just as cheaply as they and give the same guarantee, or lack of it. If the public can stand it there is no reason why I can't.

So a saturnalia of cheap bicycle selling resulted and continued for several years. It

has about run its course now, and buyers are ready to admit their mistake by selecting machines that have merit in preference to those having only cheapness.

But this change for the better has not been brought about by the dealers who in years gone by labored to uphold the quality standard. Many of them are still harping on cheapness, and make not the slightest effort to further the new movement.

They now have plenty of time to show the prospective customer how much better it would be for him to select a machine of first-class reputation than one of the cheap ones which still abound. The plea of having to sell whichever machine can be disposed of most quickly no longer holds good.

Nor is it now a matter of indifference what the individual buyer selects. The cheaper the bicycle the smaller the profit; and as the number of buyers is limited it is in making a good—or at least a fair—profit that the dealer's only hope lies.

The remarkable part of it is that more dealers do not realize this. The majority of them make little effort to push the better grades, leaving that task to their fellow members who are slowly bringing about the rehabilitation of the trade.

Nevertheless, the former are quite willing to profit by the gradual improvement that is taking place.

How Window Displays may do Damage.

An excellent illustration of the manner in which injurious impressions are created and the best interests of the trade imperiled is afforded by the window display of a conspicuous sporting goods establishment on busy Nassau street, this city.

The window is large and in it, festooned with ribbons, is an attractive array of bicycles. The placards tell the million or more who pass the place daily that the bicycles are "— chainless, price, \$37.50"

only this and nothing more. Nothing is said of the date of manufacture, and the great green public is thus filled with the idea that there is a slump or deep cut in the price of chainless bicycles.

Only those who are sufficiently interested to enter the store and inquire are told that the bicycles in question are of 1899 vintage, "but the same that we sold last year for \$75," as the salesman informed a *Bicycling World* representative.

The false idea that the placards give to the average passerby is apparent, and coming at the very opening of the active season the resulting talk and spread of such talk

makes for nothing but mischief all along the line.

The store in question is not a cut price establishment, one of its owners is a director in the cycle trades' most heavily billioned corporation, yet to all appearances the feverish desire to unload old stock outweighs considerations of the future and of the good of the whole trade.

The instance serves to show how damage may be done by petty sharp practice.

A Travesty of Justice.

Twelve good and true men sometimes show small disposition to weigh the law and the evidence when their prejudices are enlisted on the other side. Even the judge's charge is likely to be treated with scant courtesy at such times, and the worst of it all is that it is difficult, almost impossible, to bring them to book for such travesties of justice.

A case in point is the verdict rendered at Worcester, Mass., last week, and reported in another column. Twelve men from the rural districts, ten witnesses whose animus was much plainer than their intelligence, and a plausible lawyer shrewd enough to take full advantage of his opportunity, were arrayed on one side.

On the other were the law, the facts, precedents, the judge's charge, to say nothing of common sense. The result was an award of double damages, in each case largely in excess of anything that could be reasonably claimed.

Of course, the verdict will come as an unpleasant shock to motorcycle makers, dealers and users. If allowed to stand it would administer a decided check to the progress of the industry, not only in Worcester but in the country around for a considerable distance.

But the chances are that it will not be allowed to stand. An appeal to a higher court is contemplated, and its outcome can scarcely be considered doubtful. A more vigorous and aggressive defence, beginning with the selection of the jury, should result in a verdict more in accord with the law and the evidence.

Even in the unlikely event of the matter being allowed to drop, widespread disaster to the motorcycle industry is not likely to result. From the very nature of things reverses must be met with, and they should have the effect of spurring those affected to more vigorous action.

In this way good may come out of it by

removing the belief that the battle is already won and that further effort is not necessary.

The matter is one that is of moment to the entire motor vehicle trade notwithstanding. The question is whether such vehicles have a right on the public roads.

An Opportunity for Drop Frames.

One of the unknown quantities of the coming season is the demand for drop-frame machines.

There was a time, at the height of the boom, when the sale of these wheels was very large. With many makers it reached as high a proportion as one out of every three, while in a few cases it even exceeded this. But that marked an extreme, and a drop soon came.

With the gradual change of the bicycle from a pleasure and a business vehicle combined to one used mainly for business, which has been taking place for several years, the decline of the drop frame was a foregone conclusion.

But its complete disappearance is a very different matter, and extremely unlikely to come about. There are thousands of women who continue to ride their bicycles, and the practice is much more likely to increase than to fall off. The last year or two have witnessed the retirement of all who were so minded, and those remaining are little likely to follow their example at this late day.

It is apparent, therefore, that as the cycles of these riders wear out or become old-fashioned they will be replaced; it is even possible that a substantial number of recruits will come forward.

No better time could be found than the present for the offering of new machines to meet this demand. The changes which have been made during the last few years—the chainless, the cushion frame, the coaster-brake—are all such as will appeal strongly to women riders, and it will in many cases require but little persuasion to induce them to make the suggested change.

It is an experiment worth trying, at least.

For Stock Exchange purposes the American Bicycle Company may claim to manufacture "fully 65 per cent of the bicycles made in the United States," but it will have a decidedly uncomfortable time of it proving to the satisfaction of those familiar with the trade that it produces very much more than one-half of 65 per cent. It is statements such as these that recall that claims are cheap.

WORRIED IN WORCESTER

**Biased Jury Finds Against Motocyclists—
Ignores Evidence and Judge's Charge.**

It is so frequently the unexpected that happens that it should not occasion any very great surprise. Nevertheless, it nearly always does, and the result of the alleged running down 'suit at Worcester, Mass., brought against two well known motocyclists, comes as a severe shock.

As both Havener and Adams are identified with the trade, the matter is of more than local interest.

A verdict was delivered in the Superior civil court at Worcester last week in the case, which was that of H. A. Corey vs. L. C. Havener and A. L. Adams, awarding the plaintiff \$700 in each case, or \$1,400 in all. The two suits were tried in conjunction, in order to expedite matters and to save expense.

Although the facts in the case have been given in full by the *Bicycling World*, a brief résumé of them is in order. Several months ago Havener and Adams, each mounted on a motor tricycle, were proceeding along a road a short distance outside of Worcester when they met and passed the plaintiff, Corey, who was driving in the same direction.

After they had passed Corey without any trouble, they were surprised to see him come from behind and pass them, his horse going at a full run. It was down hill, and they were going slowly, power off and machines under perfect control. After going by them Corey continued on, and in attempting to go by a beer wagon a short distance ahead struck it and was upset and thrown to the ground, breaking several ribs in so doing. He was then taken to a hospital, where it was found that his injuries were not serious. Shortly afterward he brought suit, first against Havener and then against Adams. This was some time ago, and the impression gained ground that the case would not be pressed, so unpromising was it considered.

The plaintiff was represented by Thayer & Rugg, of Worcester, the junior member being the City Solicitor, who last fall prepared an exhaustive brief affirming that motor vehicles were entitled to the same privileges and subject to the same regulations as horse drawn vehicles and cycles. Messrs. Havener and Adams were represented by G. A. Perkins, of Boston, representing the L. A. W., and, in an advisory character, by Thayer & Perry, of Worcester, who were retained jointly by the Associated American Motocyclists and Havener.

The verdict was entirely unexpected, even by the prosecution. For the plaintiff ten witnesses—all horsemen or teamsters—testified,

In their testimony they contradicted each other on nearly every point; one man even went to the length of asserting that steam came from the motorcycles, which were, of course, of the gasoline type. Corey's physician testified that two ribs were broken; that he was in the hospital three days, and entirely recovered in three or four weeks; the bill for this was \$202, yet \$1,400 damages were awarded.

The jury was composed of twelve farmers, and Corey's lawyers were shrewd enough to work on their prejudices against motor vehicles and their bias in favor of horsemen. The law was on the side of the defendants, and the judge in his charge to the jury gave parallel cases and told the jury very distinctly that if the evidence did not show that the defendants were in any way careless or negligent, or that they did nothing out of the ordinary line of duty, they must find for them.

He also said that they must consider whether Corey, it having been shown that he was almost stone deaf and obliged to use an ear trumpet, had a right to drive alone on the road.

In spite of this the jury promptly returned a verdict for Corey, as stated.

In all probability an appeal will be taken on exceptions made by the defendant's counsel, and the case carried to a higher court.

Pedalled Will Wooden leg.

Even the loss of a leg does not disbar a man from the use of a bicycle. A short time ago the *Bicycling World* man had his attention attracted by the sight of a rider with a wooden leg pedalling a bicycle on one of New York's downtown streets. The traffic was heavy, and the Belgian block pavement did not afford very good going, but the man did not seem to be bothered by either of these circumstances.

The bicycle differed from the regulation type only in the right hand crank being fitted with an attachment designed to take the wooden leg. From the outside end of what bore a considerable resemblance to a pedal pin of unusually large diameter, attached to a crank of less than half the usual length, ran an upright piece of wood; this was connected by another stick to the top tube of the frame near the head. On the pedal pin, if it may be so called, the end of the wooden leg was placed, it being grooved to keep it from slipping off, and the upright stick afforded lateral support. With this help the rider appeared to be able to pedal with confidence and effect, and while he did not get the full leverage from the short crank he was able to carry it over the dead center, and even to give material assistance to the left foot.

Having had a successful season, Keyser & Kyle, of Fort Wayne, Ind., who assembled over 200 bicycles last year, are preparing to increase their output during 1901.

FERRIES ARE FREE

Motor Vehicle's Liberty Bill Made Effective at Last—Gasolene is Carried.

After considerable delay on the part of the Treasury Department, the prohibition laid on the carriage on passenger boats of motor vehicles having gasoline in their tanks has been lifted. The different ferry companies in and around New York acted promptly, once the United States local inspectors had notified them of the passage of the gasoline bill, and the restrictions have been removed and passage freely accorded to such vehicles on the payment of the customary fee.

It is interesting to recall that it was not until last summer that it was discovered that the United States statutes forbade the transportation of motor vehicles having gasoline in their tanks. Previous to that time no objection was raised to them when they were offered for passage. The point was raised by a zealous official of the ferry company running boats between Newport and Jamestown, R. I., a line much used by Newport users of such vehicles.

This official discovered or recollected that all motor vehicles except electric cars carried gasoline and, consequently, came within the ban. The result was the issuance of an order prohibiting the carriage of any vehicle containing gasoline, and this was rigidly enforced. An appeal was made to Washington for a modification of the statute, and the Inspector General of Steamboats took the ground that this could be done only by an act of Congress.

After an ineffectual effort to override this decision, the bill which has just become a law was drafted by the Law Committee of the Automobile Club of America, supported by the Associated American Motocyclists, introduced in the Senate by Senator Platt, passed and approved by the President, all in a remarkably short space of time.

An Object Lesson.

There is not so much talk about coaster brakes as there was a year ago, the novelty having worn off, but they are more in evidence than ever on the roads. Of the machines encountered by a *Bicycling World* man last Sunday very nearly 50 per cent of them were equipped with these devices, and their riders made frequent use of both the coasting and braking features.

One rider was noticed to start down a short, but steep, hill, at a good speed, and to apply his brake, by back pedalling, suddenly, almost skidding the rear wheel by so doing. Turning to a pedestrian on the sidewalk who was watching him, he remarked that the coaster brake gave the rider perfect control of the machine. The object lesson accomplished its purpose, for the person addressed remarked that he would certainly have to have one fitted to his machine.

Good live bicycles dealers of this 20th century are wise enough to discriminate between the "lowest bidder" bicycles sold by some Jobbers and bicycles built of best materials, by skilled workmen, in a modern up-to-date factory by a concern with a gilt edge reputation to sustain.

YALE BICYCLES

certainly embrace these specifications.

Have you inspected our 1901 samples? If not advise us at once and we will arrange to acquaint you with their merits.

THE KIRK MFG. CO.,
TOLEDO, OHIO.

BOSTON BRANCH: 167 Oliver Street.
Edw. Buffum, Manager.



HARTFORD TIRES

**WITHIN
THE REACH
OF ALL.**

the luxury of the best tire,

**THE
HARTFORD
TIRE,**

cannot be overestimated by those desiring *perfect* bicycle satisfaction.

It lasts twice as long, gives three times the ease of any other tire, and it can be depended on for hard service: in fact—

"IT IS AN HONEST TIRE!"

Under all conditions it has been maintained as such—and always will be.

The Hartford Rubber Works Co.
HARTFORD, CONN.

SOUTHERN SCHEDULE

Figures That Obtain on Repair Work in the Leading City of the South.

As the representative city of the South, the repair tariff that obtains in New Orleans is naturally of more than local value and interest. Although New Orleans has a cycle board of trade, the organization of itself does not appear to have taken action; but, as the appended schedule is that adopted by the concern, the Abbott Cycle Co., of which the board's president is a member, the figures may be accepted as the prevailing rates:

FRAMES.

Cutting down frames, from \$5 up.

Replacing top tube.....	\$2.50
Lower tube.....	2.50
Top and bottom tubes.....	4.00
One rear fork side.....	2.50
Two rear fork sides.....	4.00
Seat post mast.....	3.50
Head.....	3.50
Head frame connection.....	2.00
Seat post connection.....	3.00
Crank hanger bracket.....	5.00
One rear fork end.....	1.75
Two rear fork ends.....	2.75

Lining up frames.....\$1.00 to 2.00

Note No. 1—Where tubing or stays are replaced the above prices include the cost of materials, but where connections, hanger brackets, seat post lugs and rear fork ends are replaced the above prices are for the labor in doing the work and do not include material used.

Note No. 2—Where new parts are brazed in frames or forks the nickelling and enamel are consequently damaged, and the prices on such work do not include nickelpating or enamelling.

Should you desire the article nickelpated or enamelled, state so distinctly, also color of enamel desired, and whether striping and decorating is wanted.

FRONT FORKS.

One new side.....	\$1.75
Two new sides.....	3.00
New stem.....	1.75
New arched crown.....	2.50
One new tip on fork end.....	1.25
Two new tips on fork ends.....	2.00
Complete forks to order, arched crown.....	5.00
Two new sides and arched crown.....	3.50

When complete forks or new stems are desired the head parts, including upper cones and ball races, should be sent us in order that we may thread stem correctly.

Note—Above prices do not include nickelpating or enamelling.

ENAMELLING.

When machine is "knocked down."

Frame and forks (complete) re-enamelled in any dark color.....	\$3.00
Frame and forks (complete) re-enamelled in any light color.....	4.00
Frame and forks (complete) re-enamelled in white.....	6.00
Front forks re-enamelled.....	1.00
Front forks nickelled (crown and tips only).....	.75
Striping frames, plain (extra).....	.50
Striping and decorating frames (extra).....	1.00
Enamelling rims, each.....	.75
Enamelling two rims.....	1.00

Striping and decorating includes name on top or lower bar if desired.

RIMS.

One wood rim (common), 1½ to 1¾ inches.....	\$2.00
One wood rim, with new spokes.....	2.50
One wood rim, racing or tandem.....	2.75
One wood rim for G. & J. tires.....	2.50
One steel rim for M. & W. tires.....	4.50
One copper rim for G. & J. tires.....	4.50
Enamelling rims, each.....	.75
Truing wheels, each.....	.50c. to 1.50

When wheels are sent to be trued or to have new rims put on, the axles and cones should be left in them, as they are absolutely necessary in truing a wheel.

These prices are on modern wheels. Extra charge for "out of date" or special make machines that require extra labor or special spokes.

CHAIN AND MUD GUARDS.

New silk lacing on mud guard or chain guard.....	.25c. to .75
New silk lacing on both guards.....	\$1.00
New wood mud guard on ladies' bicycles.....	1.00
New wood chain guard on ladies' bicycles.....	1.00

TIRES.

When tires alone are sent us, prices are as follows:

Punctures, single tube tires, each.....	.25
Punctures, double tube tires, each.....	.50
Vulcanizing, small patches.....	.50
Vulcanizing, large patches.....	.75c. to \$1.25

When tires are sent cemented to rims and it becomes necessary to take tire off, an additional charge of 25 cents will be made for cementing to rim.

Note—We do not repair rim-cut tires. Claims for defects on guaranteed tires must be made direct to the manufacturer, and express charges prepaid on same.

SPROCKETS.

Making new rear sprocket, 7, 8, 9, 10 teeth.....	\$1.25 to \$2.00
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Estimates furnished on front sprockets.

CHAINS.

Putting one link in chain.....	.25c.
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When more than one link is put in the price per link is materially reduced. When a chain is badly worn it is best to buy a new one. If you do this you will find riding more pleasant.

GENERAL REPAIRS.

It is impossible for us to give exact figures on general work on account of its variety, but the following estimates will prove a guide. We will give fixed prices on work sent us for inspection:

Front axles, each, about.....	.25
Front wheel cones, each, from.....	.50c. to \$1.00
Front wheel cups, from.....	.50c. to 1.25
Front or rear wheel nuts, each.....	.10
Rear axles, each, about.....	.35
Rear wheel cones, from.....	.75c. to 1.50
Rear wheel cups, from.....	.75c. to 1.50

It is very often the case that it is cheaper to buy a built-up wheel than to replace bearings in an old one.

Crank hanger cones, from....	\$1.00 to \$2.00
Crank hanger cups, from....	1.00 to 2.00
Crank hanger axles, from....	1.75 to 4.00

When it becomes necessary to detach a brazed sprocket and place it back again an additional charge will be made.

Changing gears (including sprockets), from.....\$2.00 to \$4.50

Repairs to saddles, lamps, cyclometers, bells and pedals are charged according to time occupied and material used in repairing them, and cannot be estimated. In many instances prices on new pedals and saddles are less than repairs to old ones.

NICKELPLATING.

Frame and forks.....	\$12.00
Handle bar.....	1.00
Large sprocket.....	.75
Medium sprocket.....	.50
Small sprocket.....	.25
Fork crown and tips.....	.75
Fork crown only.....	.50
Spider crank.....	.40
Pedal.....	.50
Hub.....	.40
Crank.....	.25
Seat post.....	.25
Small parts and fittings, each... 10c. to	.25

Indiana's New Chain.

Changed conditions require changed methods, and there is probably no concern in the trade that was quicker to realize and act upon this truism than the Indiana Chain Co., of Indianapolis, Ind. This company has been generally regarded as among the class of quantity producers—that is, making large quantities of low-priced chains—rather than as manufacturers of the highest class goods.

This reputation was borne out by facts up to a few years ago, for the simple reason that it was possible at that time to make an excellent chain at what was then considered a low price. With the changed conditions now existing the Indiana Chain Co. have utilized the exceptional manufacturing facilities they possess to turn out goods of a class that will rank with the best in the country.

"Quality and quantity" is now their watchword, and they certainly live up to it, for nearly all the large independent makers are users of their chain, while over six hundred jobbers are on their books as satisfied customers.

The company have just brought out and been granted patents on a new chain, the special feature of which is oblong-headed rivets instead of the usual round ones. This pattern has already caught on in pronounced style.

On a recent visit of a Bicycling World man he was shown a chain of the new pattern that was almost racked to pieces by an uneven sprocket, and despite the terrific strain undergone the chain had not stretched a particle, as was shown by a careful comparison and measurements with standard new chains.

As the company express it, they have "something to sell," and that something is a line of chains that ought to interest every manufacturer, jobber, dealer and rider.

The Stearns Bicycle agency's branch at 137 West 125th street, this city, has added a jobbing department, and will bid for the trade of the metropolitan district. This branch, by the way, is one of the most attractive and well kept in New York.

MOTOCYCLE PRICES

Cut on Werners in England—What it may or may not Signify.

London, March 6.—Reliable authority tells me that there are a considerable number of Werner motor bicycles here to be bought in lots of ten or more at prices that almost stagger belief, and when it is remembered that the machines are all absolutely new and fitted with the usual motor and all accessories—in fact, ready to take upon the road—it is clear that they could not be produced commercially for the price asked. Why then is it that they are in the market at these figures? It is not all due to the fact that some unlucky agent has been over enthusiastic, has ordered, and been compelled to accept delivery, because most of the particular cycles to which I refer would be sent against private orders from the Continent. It may possibly be that they have come into the market in some round about way, but the fact remains that they are to be bought at unusually low prices.

This in itself is not a pleasing reflection for the Werner people, or for other makers of motor bicycles generally. I am afraid that in some cases too many motorcycles have been made, having regard to the fact that these machines are only in their infancy, and that improvements are likely to take place. It is not so much the fact that these improvements are materially effective, as the idea which the would be buying public hold that it will be better to wait a little until the manufacturers have finished experimenting.

In the early days of the ordinary cycle, makers practically only built to order, and never made in quantities, principally because they had not the necessary plant for doing so, and, therefore, it was obviously impossible for the market to be flooded. The public bought the machines and were content to conduct experiments at their own expense; now they expect the manufacturers to provide perfection, or nearly so, at once, and if they see that this stage is not reached, they are inclined to look on until they are more certain of success with their purchases. The increased cost of the motorcycle over that of the pedal-propelled machine is another factor which adds to the reluctance to buy more or less experimental mounts. The result is that there may be still more cases of "cutting" for the sake of clearing, even at a very substantial loss.

So far then, the motor trade in cycles here is in a rather awkward fix. Prices running high choke off the demand, while they cannot be reduced unless the machines are put through in large quantities. When this is done, there is a fear that the supply may for the time being exceed the demand, and this means the locking up of a good deal of

money and further risk of actual heavy loss, for should any great improvement be brought out—as may happen with a new industry at any moment—the whole stock is depreciated far below the cost at which it was produced even in large quantities. It is this state of things which causes anxiety to many people in the motor cycle trade at the present time.

Practically it may come to this, as a *dépôt* manager remarked to me the other day. The few component companies now catering for the motorcycle trade will be the people to produce in quantities, and the small local makers will assemble the parts and construct the complete machine. The larger cycle making firms will probably not condescend to this, and so a great deal of the motorcycle trade will go to the local men. These smaller firms can also produce the machines at a much cheaper rate by buying every part, and that only when they have an actual order. The assembling will not



SPROCKET SUGGESTION FROM ABROAD.

take long, and as most of the actual work is done for them on the basis of a large output, they reap all the benefits of building in quantities with none of the risks which such a course involves when adopted by a single firm for the production of its own machines, for which there may possibly be a limited market. There is a great deal in this view of the case, and I fancy that during the year we shall see that the component companies and the smaller local assemblers will be the people to make money out of motorcycles.

Meanwhile, improvements do not seem to come along very fast. The motors seem to work well, and the principal cause of any trouble which arises is the ignition. This, moreover, is usually due to faulty wiring to the induction coil, which is sometimes apt to give trouble. If the coils were made heavier and stronger I do not think that there would be much to complain of in the modern motorcycle. A good coil, in conjunction with a good compression tap, entirely overcomes any difficulty in starting, which is sometimes noticeable during cold weather. Both the items are simple and by no means costly. With wet accumulators and double contact springs, misfiring would practically never occur.

British vs. American Bars

"It is curious," says the Irish Cyclist, "that the adjustable handle bars so popular in America never have caught on here to any extent." Our cyclists prefer to find the correct adjustment and stick to that, or perhaps it is that the American is fond of lending his machine or experimenting frequently. Whatever the reasons, there is a great difference in the habits of the countries in this respect."

The anomaly has been remarked on time and again on this side of the water, but the reason advanced to account for the different reception accorded the adjustable bar is very far from being the right one. For it is a singular fact that American riders seldom avail themselves of the opportunity to change the position of their bars. Nevertheless, they insist on adjustable bars being fitted to nearly all machines, and would feel very much aggrieved if this were not done.

The fact is that it was the talking points of the adjustable bar, together with the ingenuity shown in its design and construction, that made it so universally popular. The ability to change the position of the bar a dozen times over, and this without the sacrifice of any advantage possessed by the fixed bar, was a wonderfully good thing—in practice—and riders were not slow to see it. Put baldly, between a bar adjustable to any position and another limited to one, there could be scarcely any doubt what the choice would be.

But the power to change the position does not necessarily imply that it is being constantly availed of. A rider may indulge in a little experimentation at first, but it is not long before he gets an adjustment to his liking, and then it is rarely if ever changed.

At the same time, he likes to feel that should he ever want to make a change all that will be required is a wrench and a couple of minutes' leisure. On the other hand, if he knew he could not adjust the bar there would be engendered a desire to do so. This would work on the rider until he would be just as liable as not to change to an adjustable bar, solely to be able to make as many changes as he desired.

All this is very curious, but quite beyond dispute. It is just the other way with the British rider; he has no such objection to being circumscribed in his actions. Hence his satisfaction with a fixed bar.

SOLAR LAMPS

The Kind That Satisfy.

MADE BY

THE BADGER BRASS MFG. CO., Kenosha, Wisconsin.

THE LEADING HOUSE
FOR
TIRES, SUNDRIES & TOOLS
GOODS UP TO DATE PRICES TO PLEASE
BROADWAY BICYCLE & SUNDRY MFG CO.
7 & 9 WARREN ST. NEAR BROADWAY NEW YORK.
SEND FOR OUR CATALOGUE AND
MONTHLY BARGAIN SHEET

CLARK'S CENTURY

Baltimore Dealer Places a "First" to his Credit—The Lessons Learned.

Motocycling is very new in this country, and in the minds of many the practicability of the motor bicycle, to mention only the newest type, is yet to be demonstrated. Consequently, there is much to learn about it and many experiences to be had, pleasant and otherwise, before it becomes a familiar sight.

One hundred miles is not a remarkable distance to cover, even on a bicycle of the ordinary type. Centuries are reeled off by women and children, and little is thought of the feat. Nevertheless, there was a time when the covering of this distance stamped a man as no ordinary rider. That was when cycling was young, and public attention was centred on the new and wonderful machine which was destined to revolutionize transportation methods. And when it is remembered what manner of bicycles were on the market in those days this interest is not surprising.

With the motor bicycle a fresh start has to be made, a new era inaugurated. In this line is a 100-mile run undertaken and successfully carried out last week by Frank I. Clark, the well known Baltimore dealer and member of the Associated American Motocyclists. Mounted on an Orient motor bicycle, fitted with a 2¼-horsepower motor, which had been received but a few days before, he covered the 100 miles in eight hours elapsed time, only six of which were consumed in actual riding. The motor worked perfectly throughout, never giving the slightest degree of trouble.

Stops were made for lunch, to replenish the supply of gasoline, to put fresh supplies of lubricating oil in the motor and, last of all, to repair a tire puncture caused by a four-inch nail. The repair was quickly made, but it was found impossible to inflate the tire with the small hand pump carried. After a delay a large pump was procured and the tire filled with air. This left but six minutes of the eight hours Clark had set for his ride, with two miles to go. Once started again, however, this distance was covered in five minutes.

Some interesting particulars of the rider are furnished the *Bicycling World* by Clark. Incidentally, they serve to answer many of the criticisms passed on motor bicycles by theorists, and coming from one who had two years' experience with a motor tricycle before taking to the two-wheeled motor machine they are particularly valuable.

"One would suppose," he says, "that sitting in one position for a long distance would become tiresome, but I did not find this to be the case. I shifted my position from time to time, riding first with the one foot upmost, and then changing. At times, es-

pecially when descending slight hills, I would shut off power and pedal. I did this for two reasons. I found the change for a slight distance very agreeable, and as I was somewhat dubious about my supply of gasoline holding out until we reached our station, I did this on several occasions to save fuel. Many persons have the impression these machines cannot be pedalled, while on the contrary, they are pedalled remarkably easy. This trip has demonstrated to me that the motorcycle will be a world revolutionizer, and I shall welcome all innovations in this direction.

"It is really amusing the questions and comments one has thrown at him, and it is really actual riding tests like the above which will dissipate people's belief that motorcycles are not practical because they

MORGAN & WRIGHT TIRES
ARE GOOD TIRES
 DEALERS AND REPAIR-
 MEN WILL FIND MANY
 NEW THINGS IN OUR
 CATALOGUE AND PRICE
 LIST
MORGAN & WRIGHT
 CHICAGO

**NEW YORK BRANCH: 214-216 WEST 47th ST.
 BOSTON BRANCH: 80 BATTERY MARCH ST.,
 Near Fort Hill Square.**

are heavy; that they are expensive because they are high, or dangerous because they are fast.

"I rode my motorcycle fully as freely about town as I ever did a wheel, and now that I have got used to it I go in and out among cars and traffic, with about the same ease as I did on a wheel. Up to the time I took my century, I had only been riding this motorcycle six days, and it was the first time I ever was on a machine of this character, although I have been riding a tricycle for nearly two years."

Chicago and Cincinnati.

The Monon Route and C. H. & D. R'y run four trains daily from Chicago to Cincinnati. The day trains leave Dearborn Station, Chicago, at 8:30 A. M. and 11:45 A. M., and are equipped with elegant Parlor and Dining cars. The Night trains leave at 8:30 P. M. and 2:45 A. M. These trains are equipped with elegant sleepers and compartment cars, the sleepers on the latter train being ready for occupancy at 9:30 P. M. City Ticket Office, 232 S. Clark St., Chicago. ***

DRUGGISTS' DOINGS

Their Efforts to Stop Price-cutting and What They Suggest to Cycle Dealers.

It is not alone the bicycle trade which is troubled with price cutting and over competition. Tradesmen in other lines of business have to contend with the same recklessness, not to say vicious, policy, and are obliged to see the profit squeezed out of nearly all the articles they handle.

In conversation with a retail druggist the other day, the *Bicycling World* representative learned that the evils complained of were very much to the fore in his business. But, what was vastly more encouraging, he was told that strong efforts are being made to bring about a reform, and with a good prospect of success.

"People talk about the enormous profits we make," he said, "and think that we are rapidly getting rich. Just the contrary is the case. Prices have been cut until on very many articles the maximum profit we can count on is 10 per cent, and sometimes it goes as low as 5 per cent. Of course, no business can be successfully conducted on such close margins as these, and if it were not for a few lines which yield a more reasonable profit we would all be in a bad way.

"Matters have been going from bad to worse, and in self-defence we have been obliged to unite for mutual protection. We now have an organization of retail druggists numbering some 23,000 members. We have bound ourselves not to sell goods at the cut rates so prevalent heretofore, even agreeing to lose sales rather than do so. I turned a man down just a few minutes ago, and if such action becomes general we shall undoubtedly win out."

There is a hint here for the bicycle trade, and every retailer should give it more than passing thought. The same evils afflict him and have in the past nullified years of hard work. In consequence of them the average dealer has little or nothing to show for his investment of time and money; in fact, he is very fortunate if he has not come out of the struggle a loser.

Whether the future is to see a change and bring the dealer a well merited reward is for him to say. The abuse has been largely of his doing, the remedy is in his hands. He has but to insist on getting a fair profit for every bicycle, part or sundry that goes out of his store. If he does not do this lack of success—possibly actual failure—is certain to result.

The time for such unbusinesslike proceedings as the sale of goods at cost, just because it is believed that a rival dealer would do the same thing, is past. Far better to let such sales go, holding firm everywhere, than to let down the bars entirely in one place and part way in another. Each such case brings the average down and leads to fresh concessions being made.

Motor Bicycle vs. Other Kind.

They were discussing the relative merits of bicycles with and without motors. The motor advocate was dilating with great eloquence upon the wide field which lies before his new favorite, and in claiming too much for it laid himself open to a rebuff.

"All you've got to do to disgust a rider with the ordinary bicycle," he declared, "is to let him try one fitted with a motor. He will never want to go back to the former, with its slow, laborious method of driving. Just as soon as the motor bicycle gets started you'll see everybody dropping the old kind and turning in for the one which kills hills and head winds."

"Not all all," retorted his adversary. "Nothing could be further from the truth. The light, simple, clean and ever ready bicycle will always be in the majority. Its convenience will make it score over the motor bicycle, just as it did over the horse and wagon. It does not have to be made ready for use; it's always in condition to step right on and be off about your business, long before you could fill the motor machine up with gasoline and lubricating oil.

"Not only this, but it will continue to be the favorite of that large class of riders which needs exercise. Walking and riding the ordinary bicycle are the only ways they can get this, and the idea that they will take to the lazy man's bicycle and thus cut themselves off from the exercise and keen enjoyment of a spin over the country is absurd. Why, they would get tired of coasting almost in no time, and wish for the machine which would permit them to keep their legs going."

"Not a bit of it," said the believer in motors. "To prove this I'll just ask you if a rider ever gets tired of coasting on the ordinary bicycle? Does he ever stop coasting before he gets to the bottom of the hill, or while his machine is still running under the influence of the momentum acquired? Not a bit of it, and you know it," and with this parting shot he retired in triumph.

WHY BUY New Jersey
Mud mixed with Sulphur
and baked on to Fabric,
when for about the same
price you can buy really
High Grade Tires?

No. 66 Fisk just one-
half factory price, and
Kangaroo one-half price.

Write for prices before
they are closed out.

BOSTON CYCLE AND SUNDRY CO.,

J. M. Linscott, Manager,

7 HANOVER ST.,

BOSTON, MASS.

About "Going to the Dogs."

What is more annoying than that person in the cycle trade who is perennially pessimistic on every subject directly or indirectly connected with the business in which he is engaged? asks an English writer. And, on the other hand, what is more amusing than the manufacturers, salesmen and retailers who declare with all due solemnity that the industry is "going to the dogs"?

It is a part of our business experience to meet these people. You can very seldom get away from them until they have burdened you with a long-drawn-out tale of their troubles and vexations, invariably ending with broad generalizations painting the future as dark as a million black cats and picturing the present as entirely out of order.

Fortunately, calamity howlers are in the minority—an almost insignificant percentage of those who make up business. They are, in fact, mere dots on the sun compared with men of brain and enterprise, courage and skill, who have developed the industry. But, few as they are, still they do exist, and always make themselves heard when you come across them unexpectedly and unwillingly. And in the interests of the busy, buoyant, self-reliant workers in the trade it would be well if they might see the errors of their way of thinking and doing.

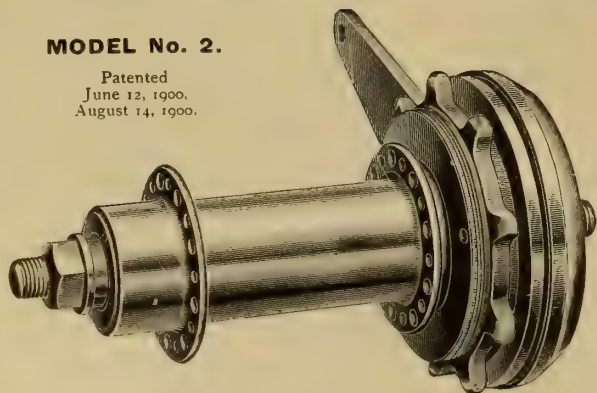
In the first place, the cycle trade, despite the "evils" of which one hears so much, is in no more danger of "going to the dogs" than is the iron and steel industry. The cycle industry is here to stay, and there is yet plenty of room in its ranks for ability and adaptability. The world does not move backward, and every business linked with present time interest is progressing with it. Its steady development has not paused to seek advice from individuals. And in some respects you, Mr. Pessimist, may be a trifle behind the times, which fact may warp your conception and throw out of perspective your part in the harmony of things as they are.

Success sets a swift pace, and to keep up to it you must hustle, not howl.

"E Z" COASTER BRAKE.

MODEL No. 2.

Patented
June 12, 1900.
August 14, 1900.



SIMPLICITY

LESS PARTS THAN ANY OTHER COASTER MADE.

With the "E Z" COASTER BRAKE fitted to your wheel all fear at once leaves the most nervous person, for you are in position to stop the wheel immediately—and always have it under control.

Your 1901 wheel should be fitted with the "E Z."

Any dealer can furnish it.

Send for Catalog "C."

Sole Manufacturers, REED & CURTIS MACHINE SCREW CO., Worcester, Mass.

CHANGES AND CONTRASTS

How They Affected the Industry in Years That Have Passed.

How sharp are the contrasts between the different phases of the bicycle industry can be fully understood only when they are presented in some bold and striking manner. Unless this is done the average rider or tradesman is apt to forget the time when a different state of things existed. When he is reminded of the old order, however, it comes back to him with startling distinctness.

Very recently Mecredy, of the "Irish Cyclist," dwelt at some length upon the great difference in the matter of noise between the ordinary bicycle and the one driven by a motor. Other writers had before made chance allusions to the matter, but in such a cursory manner as to call but scant attention to it. The regularity of the noise of the exhaust, and its persistency in obtruding itself upon the attention of the rider, are its most marked features.

"When you come to think of it, though," remarked the oldtimer, to whose attention the matter was brought, "the present day bicycle was not always regarded as a perfect example of noiselessness. In fact, when it first came into use it was just the other way. The chain was the part which marked the difference between it and the high wheel in this respect. No chain is ever noiseless, and the worse kept it is the more racket it is certain to make.

"With the ordinary or high wheel—how time changes names—ordinary no longer means high wheel, although the two terms were once synonymous; while safety has dropped completely out of sight, and ordinary is about the best name to apply to the pedal driven bicycle to distinguish it from the motor attached one. Well, as I was saying, with the high wheel it was very different. It was noiseless, or practically so; hence its name of the 'silent steed.'

"To be sure, at high speed there was a noise made by the big wheel, caused by its rapid flight through the air and its passage between the front forks. But it was a pleasant sound and never objected to by any rider. Its accompaniment denoted that the rider was speedy, and that could not but help to tickle his vanity."

"It is curious, too," said the travelling man, a graduate of the retail trade, "how far we are getting away from the point of view of the old high wheel riders. They loved their machines because they were high in the air, dangerous and hard to learn and manage. They were pre-eminently the young men's machines, and this in spite of the fact that a few of the riders were beyond the first flush of youth. The fact remained that it required an effort on the part of the latter to keep in the game, and each year,

as they got older, their nerve became more and more shaken.

"Nevertheless," he continued, "when the safety first began to make headway it was vigorously opposed by the great majority of riders of the high wheel. They objected to it because it was low and safe and easy to learn. Where would be the glory of bicycle riding if such machines came in and drove out the beloved high wheel? It would depart, and there would be no inducement to any of the oldtimers to retain their interest in the pastime.

"The low wheel, or safety, conquered, however, and the ordinary disappeared from the face of the earth. Everything urged against the safety was of a sentimental nature, while its advantages were all eminently practical; and it was not surprising that it attained a popularity far beyond anything which could have come to the high wheel."

"Yes, and there was the pneumatic tire," said the oldtimer, taking up the subject again. "It violated all previous rules and completely discomfited those who criticised it. It worked a revolution in cycle construction, shelved the spring frame, inaugurated the lightweight era, laid the foundations for big tubing, sprocket wheels, etc., sent prices up and made possible the almost universal use of the bicycle.

"No greater contrast could be imagined than existed between the two tires. The solid had remained unchanged for many years, and shone only when compared with the steel tire used on other vehicles. The air tire, on the contrary, dominated the whole machine. Everything else, almost, was subservient to it and received attention only after the selection of the tire had been made.

"Coming back to the motor bicycle," he continued, "it is not alone the noise that distinguishes it from the ordinary machine. The latter is almost Spartan in its simplicity, a triumph of modern ingenuity and eminently fitted to perform the duties which devolve on it. The process of evolution has been going on for nearly two decades, and so perfect is the product of to-day that further progress seems to be almost impossible.

"With the motor bicycle the conditions are exactly reversed. Multiplicity is introduced, and with absolute necessity. An engine is brought in to take the labor of propulsion off the shoulders, or rather the legs, of the rider. It offers all the opportunity that inventive designers could possibly wish in evolving the standard type. We are only at the beginning, and no one can tell what direction standardization will take.

"The two machines will possess many points of similarity, but they will also and always be widely different. I doubt very much if the time will ever come when the separate existence of the ordinary bicycle will be wiped out. It possesses features which will always commend themselves to a considerable proportion of riders," and the veteran cast a look of affection on one of the latest products of the machine he referred to.

ABOUT THE SALESMAN

One Man's Opinions and Advice—Effect of "Working on Commission."

It takes a very capable man to make a good salesman, observes an exchange. One who knows how to shut his mouth as well as how to open it when necessary. One who understands how to keep his mind on the matter in hand even when the really interested party wavers. A man whose perseverance is perfectly balanced by politeness, tact and understanding; a man whose selfish side is strong, but controlled by intelligence. A man who, having learned to control himself, is capable of influencing others—such a man will make a good salesman.

Don't tell everybody that you have a large fund of experience in the study of human nature. The very telling of it proves that you are mistaken. Do not talk of your magnetic powers, your almost hypnotic capacity. Ten to one you have not got it; but if you have, do keep it out of sight; it will serve you better so. Do not wind yourself up like a clock with some set speech. Be natural; be yourself. Copy no one, but study high and successful models.

One wins by one method, another by the very opposite. Most of them work as industriously as their line permits. It was a good salesman who placed but one order in eighteen months—but he sold suspension bridges. It is a very general mistake to suppose that unless tempted by a commission salesmen will not work actively. After years of hard experience in this line I want no men on commission; the irregular income and the irregular life which grow out of a commission do not produce the best results.

After all, a salesman is a man, an active one; beset by many temptations; troubled by many drawbacks; leading too often an irregular life in point of brains, if not of habits; too prone to think little of his calling; too apt to touch heaven when he has an order and the nether regions when he is "turned down."

The truth serves the salesman best. He should pursue the truth as to the buyer's interest and advantage, but to do so he must himself have at least a speaking acquaintance with truth. He should fortify himself with facts, with tact, with business hints—and let the drinks and cigars go! He should be polite to every one—it pays. One thoughtless or oversmart salesman was rude to my bookkeeper, and, as, like most men, I keep my books in my head, his balance long stood on the debit side. But with all their faults they are a bright lot, and I love them. So here's to the salesman—may he call again!

Opening in Spain.

J. E. Villalta, 7 and 9 Puertaferri, Barcelona, Spain, is in the market for cycles and accessories or for the agencies thereof.

COMFORT

with

SPEED

Is the

CUSHION FRAME

Motto.

The **CUSHION FRAME** is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold **WITHOUT** IN THE LEAST DETRACTING from the **SPEED** or **POWER** of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy, "get there" riders who at first "scoffed" the idea of **COMFORT** being combined with "speed and power" in a bicycle.

HYGIENIC WHEEL CO.,

220 Broadway, New York.

Owners of the Cushion Frame Patents.

OUR
CRANK
HANGER
DOES
IT.The
RacycleDOES
WHAT?
MAKES
IT RUN
EASY.THERE'S REAL COMFORT
IN THE REEVES**Ideal Spring Seat Post.**

It relieves all jolts and jars, and converts any Bicycle, new or old, into a Cushion Frame. Fits any wheel. Sent prepaid to any address on receipt of \$1.75. Money back after three days' trial if you want it. Send size of present post.

D. E. ORVIS & CO., 71 E. Genesee St. Buffalo, N. Y.

Reference, Buffalo Commercial Bank.

Dealers send for Circular and Wholesale Price List.

Retail Record.**FIRES.**

Mendon, Mich.—Harvey Appleton; loss, \$1,200.

Enfield, N. H.—F. A. Fogg; loss, \$10,000; partly insured.

Tonawanda, N. Y.—I. O. Sauberan, Young street; slight damage.

Colon, Mich.—Lemons & Leland; loss, \$4,500; insurance, \$3,000.

NEW STORES.

Monroe, Ga.—J. T. Long.

Chicopee, Mass.—Grady & Minie.

Arcadia, Wis.—Henry Zindel.

Geneva, O.—Frank W. Dickinson.

Lenoxdale, Mass.—William Harrington.

Ironton, O.—W. M. Mann, repairing.

Sumter, S. C.—Cooper Cycle Repair Co.

Aurora, Ill.—L. H. Brunemeyer, reopening.

Walton, N. Y.—A. G. Brown, Gardiner place.

Webster, Mass.—Warren F. Howes, School street.

Hintonburgh, Ont.—T. A. Scott, Jr., repairing.

Tampa, Fla.—Greer & Co., Franklin and Cass streets.

Wellesley, Mass.—W. R. Frampton, Central street, reopening.

Greenfield, Mass.—A. N. Pierce, Pleasant street, repairing, reopening.

Trenton, N. J.—The Trenton Cycle Co. opened a branch at 7 S. Warren street.

Dover, N. H.—Frank F. Wentworth, Franklin Square, branch of 4 First street.

CHANGES.

Erie, Pa.—Jacob Roth succeeds Koster & Baumeister.

Liberty, N. Y.—W. J. Gorton succeeds Guy Fisk.

Greenfield, Mass.—Jacob Schick removed to Chapman street.

Pawtucket, R. I.—A. F. & F. Gray removed to 250 Main street.

Trenton, N. J.—John Howard, North Broad street, sold out.

Dansville, N. Y.—Harvey J. Thomas succeeds C. J. Fritz, repairing.

Auburn, Me.—The Darling Bicycle Co. is making alterations to its store.

Binghamton, N. Y.—Smith & Willys have bought out William Montrose.

Worcester, Mass.—Alston & Goulding removed to 36 Foster street, where they have much more room.

New Canaan, Conn.—G. H. Stevens, closed.

Oneida, N. Y.—B. H. Van Horn succeeds Van Horn & Dutton, G. L. Dutton retiring.

IF WE CAN GET

our catalog and quotations into your hands we are reasonably certain that we will hear from you again. If we can show you our bicycles we know that even more surely that you will want

THE INDIAN AGENCY.

The catalog specifications and guarantee give an idea of the quality; the quotations prove our liberality; the list prices, \$25, \$30 and \$35, are the popular ones; and an examination of the bicycles themselves "will do the rest." We are sure of it. Write us.

Hendee Mfg. Co.,
Makers of the Indian Bicycles,
Springfield, Mass.

THE NEW DEPARTURE COASTER BRAKE

THE BEST THE MODERN WITCH.

THE ANCIENT WITCH.

FREE WHEEL, TIGHT PEDALS, ANY SPROCKET, ROLL BACKWARD.

SELLING AGENTS JOHN H. GRAHAM & CO. NEW YORK CITY.

THE NEW DEPARTURE BELL CO. BRISTOL, CONN. U.S.A.

FORK SECURITY

**One of the Features that the Retailer Should
Should Make More of.**

Of all the parts of the modern bicycle none are likely to be attended with such serious results in case of breakage, and at the same time are so easy to safeguard, as the front forks.

Yet in spite of these two instructive facts it is probable that front fork breakages largely outnumber any other kind. It is true that one such mishap will be more talked about than any three others. Nevertheless, inquiry among dealers and repairers has always revealed a state of affairs that goes far to support this contention. Additional evidence in support of it is afforded by the Irish Cyclist, which, speaking of the subject as seen in Great Britain, where the trouble seems to be much more serious than here, says:

"We got a further very interesting little item of information from Mr. Keating, which we must say surprised us, and that was in reference to the number of breakages which occur in front forks. He informed us that during the season the number of fork replacements effected by him amounted to, as nearly as possible, two a day. These, needless to say, were mostly on machines brought in for repairs, not necessarily sold by Mr. Keating, and we mention the fact to emphasize the danger of purchasing cheap machines which are liable to such breakages.

"Our readers may maintain that the proportion of forks that break in comparison to the total number of bicycles in use is small. That may be so, but on the other hand we think the public do not fully realize the seriousness of such an accident. By far the greater proportion of severe injuries caused through cycle accidents, as also deaths, result from broken forks, for the reason that the cyclist is, as a rule, thrown straight on his head, and if travelling fast is certain to be seriously hurt if not killed. If he buys a high-grade machine of good class the chances of his meeting with such an accident are exceedingly remote.

"At the same time we do not mean to argue from the above that a man had better not cycle at all than not ride a good machine. After all, the proportion of breakages is not very great, and with every precaution one is bound to incur risks in all kinds of amusements. What we want to urge is that every individual should buy the very best class of bicycle he can possibly afford, and if his means will not allow him to purchase anything but the cheap machine he should ride with additional caution in consequence, and should at regular intervals inspect all vital parts, such as the front forks."

When Guards were Used.

Noteworthy as showing how completely things drop out of sight was a remark made recently by a well-known dealer to the Bicycling World man relative to the fitting of mudguards.

"How much better that ladies' wheel would look if it had a mudguard to the front wheel as well as to the back!" he said. "As it is, it presents the appearance of a machine with something missing about it, needing some finishing touch that the maker had neglected to add. But, of course, we never did go in much for mudguards, not even on drop frames, much less on those intended for men; they never had any guards."

Yet the speaker had sold bicycles a dozen years ago, when they were never permitted to leave the factory without a full complement of guards. Men's as well as women's machines had guards to both wheels, and usually a chain guard as well. On the former, to be sure, the chain guard consisted simply of a piece of steel bent over so as to cover both the top and outside of the chain as it passed on the upper side of the sprocket wheels. It thus served the purpose of shielding the rider's trouser leg from contact with the chain.

In thus equipping machines American makers followed the example of their English rivals. The latter had early found that the safeties threw mud over the riders, and as muddy roads were the rule rather than the exception there it was deemed necessary to afford some protection. This was done by adding guards to both wheels, as stated.

Later, when the pneumatic tire came in, the practice of fitting guards was stopped. It was necessary to make them so wide, the tires then being 2 and 2½ inches in diameter, that, being of steel, they were extremely heavy, and as weight was then a matter which was receiving great attention the practice soon fell into disuse.

Beware of Minors.

Once more the folly of selling bicycles on the instalment plan to minors is in a fair way to be exemplified. The legality of such sales has been questioned in a suit now being tried at Minneapolis, Minn.

Suit was brought by the Great Western Cycle Co. of that city against Willie Leaf, a minor. It appears that young Leaf, who is under 18 years of age, purchased a wheel for which he agreed to pay \$40, and the conditions of the sale were put in the form of a contract. He paid \$27 on the wheel, after which he failed to meet the payments, and suit was brought by the company to collect the balance due. In the arguments counsel for Leaf raised the point that, being a minor, the latter had not the power to make a contract; and should this point be sustained by the court thousands of similar contracts made with minors will be invalidated.

On "the other side" the discussion of the comparative merits of the various forms of cross frames still waxes warm. One of the makers has gone so deeply into it that he sends a miniature steel model of his frame to all who apply for it.

EDUCATING JUDGMENT

**The Technical Society Gentleman Arises
and Declares Himself on the Subject.**

Of all teachable things, the education of the judgment receives the least attention, while its importance is supreme, declared a member of the Technical Society.

I do not know of a single university that has a chair of common sense, and in trying to reason out why this so important endowment is not taught I can think of but one reason, and that is the impossibility of finding a man to fill such a chair.

Men in all professions are therefore left to acquire this most important part of their education as they acquire practical experience, and in most cases with as little success.

It is an unfortunate condition with us that we are nearing the end of our work before we realize how important a factor judgment is in all questions of importance that come before us in our everyday experience.

Self-education in the matter of judgment is a lifelong mental discipline. One of the most important points in this process is very difficult to deal with, for every time it comes up it involves us in an internal struggle which equally affects our vanity and our ease.

This point consists in the tendency to self-deception in regard to the result we wish for. For any one who is not brought daily to the necessity of self-correction in regard to this tendency it is impossible to realize how all-powerful the tendency is, and how unconsciously we all yield to it. How eager we all are to seek for such evidence as may be in favor of what we want the result to be and to disregard any evidence pointing the other way! We receive as friendly that which agrees with our preconceived notions, and resist and dislike that which opposes them.

In fact, the inclinations we exhibit to receive and to act upon any report or opinion that harmonizes with our preconceived notions can be compared in degree only with the incredulity we entertain toward everything that opposes them. And all this goes on unconsciously, while we honestly believe that our judgment is entirely free and unbiased.

Looks Well in Minneapolis.

According to a Minneapolis (Minn.) journal, the dealers there are practically unanimous in asserting that "business is picking up in wonderful style, and all are pleased with the prospects." Last week is described as having been a very busy one, and the conclusion reached is that there is no abatement of the interest in cycling in the city.

Olive and Holly to Work Together.

Arrangements are said to have been completed between the Olive Wheel Co., Syracuse, N. Y., and the Holly Motor Cycle Co., of Bradford, Pa., whereby the former will manufacture motor bicycles for the latter.

The Week's Patents.

669,509. Fabric Having Metallic Teeth or Wires Secured Therein. Albert L. Cudey, Paris, France, assignor to the Societe Cudey & Compagnie, Fontaine le Bourg, France. Filed Sept. 22, 1900. Serial No. 30,815. (No specimens.)

Claim.—A fabric comprising a body portion and substantially U-shaped wires extending transversely through said body portion, said wires being undulated throughout at least a portion of their extent.

669,538. Bicycle Support. Eben Miller, Fredericton, Canada. Filed April 28, 1900. Serial No. 14,712. (No model.)

Claim.—1. A bicycle support, comprising a supporting frame, a rack bar movable on said frame, gear wheels for engaging with the rack bar, supporting legs carried by the gear wheels, and a wheel-engaging device operated by movements of the legs, substantially as specified.

669,569. Counterbalance for Pedals. Chadbourn M. Whitmore, Superior, Wis. Filed Sept. 14, 1899. Serial No. 730,480. (No model.)

Claim.—1. A counterbalance for pedals, comprising a weight, an elastic cord formed with loops to engage a pedal, the said cord being entwined through and about the said weight so as to automatically hold the weight at different points to which it may be slipped on said elastic cord between the said loops, whereby the weight will be held at a proper point beneath the pedal to balance it, substantially as described.

669,542. Crank Mechanism. Jehu C. Moore, Brooklyn, N. Y. Filed Aug. 14, 1899. Serial No. 727,113. (No model.)

Claim.—1. In a velocipede, the combination with a driving shaft and radially slotted drivers or driving arms fixed thereon, of two cranks mounted eccentrically to the said shaft on the crank hanger between said drivers, said cranks having each a roller stud which engages the slot in the adjacent driver, substantially as set forth.

669,606. Pneumatic Tire. Bacon Wakeman, Fairfield, Conn. Filed Dec. 23, 1899. Serial No. 741,488.

Claim.—1. A double-compartment pneumatic tire of the class described, one compartment of which is for compressed air and the other filled with an armor-proof or non-puncturable material comprised of an outer layer of fibrous material and an inner layer of resilient metal wire or wool, substantially as set forth and described.

669,645. Velocipede Driving Mechanism. Frank A. Kelley, Susanville, Cal. Filed Nov. 1, 1900. Serial No. 35,188. (No model.)

Claim.—A saddle pivoted to turn laterally on a support above and in the vertical plane of a bicycle, in combination with two rods jointed at one end to the pedal-shaft crank and at the other to a crossbar on the saddle, by a universal joint; whereby the bicycle may be propelled in the manner described.

669,652. Bicycle-Gear Driving Mechanism. Joseph G. Moomy, Erie, Pa. Filed May 7, 1900. Serial No. 15,834. (No model.)

Claim.—1. In a bicycle, the combination with the rear-wheel hub; the axle and driving gear; of a removable axle bracket at the opposite side of the wheel from the driving gear, to which the axle is secured, said bracket being of greater radius than the adjacent portion of the driving-wheel hub, whereby a tire may be removed or introduced through the space between the hub

and the remaining portion of the frame, after the removal of the axle bracket; the top and lower stays of the frame; a connecting piece between said top and lower stays; and means for securing the removable axle bracket to the frame formed by the stays and connecting piece.

669,653. Means for Attaching Motors to Bicycles. William W. Morse, West Orange, N. J. Filed Oct. 16, 1900. Serial No. 33,327. (No model.)

Claim.—1. In a motor-attaching device for vehicles, in combination, a bracket attached to the frame of the vehicle at a point other than the axis of the driving wheel, a motor attached to said bracket at a point concentric with the axis of said driving wheel, and secured to said bracket, said motor being pivotally adjustable with respect to said bracket by means adjustable in slots concentric with the said axis.

669,676. Bicycle Pedal. Casper Bickel, Shelburne Falls, Mass. Filed Mar. 10, 1900. Serial No. 8,219. (No model.)

Claim.—1. A bicycle spindle having a flattened notch portion located inward from its screw-threaded end and a locking washer having a part fitting thereon, in combination with a screw-threaded cone bearing and the nut, each provided with circumferential notches, the said washer having teeth to engage in said notches, substantially as and for the purpose described.

669,677. Luggage Carrier for Bicycles. Walter J. Bray, Des Moines, Iowa, assignor by direct and mesne assignments to Otto Miller and Frederick Weineke, Chicago, Ill. Filed Dec. 18, 1899. Serial No. 740,658. (No model.)

Claim.—1. A carrier for bicycles comprising a strip attached to the bicycle frame and extending in the plane of the wheels and having a longitudinal slot, an extensible crossbar comprising two members sliding on each other and provided with longitudinal slots and means for clamping such members through said slots and said strip together and in adjusted positions.

669,692. Vehicle Tire. Morton Harloe, Hawley, Pa., assignor of one-half to Wilton S. Bloes, Peckville, Pa. Filed Oct. 27, 1900. Serial No. 34,620. (No model.)

Claim.—1. As a new article of manufacture the herein-described vehicle tire comprising an inner metallic tube having telescoping ends, a sealing strip of rubber adapted to cover the joint at said telescoping ends, a padding of cork or other suitable springy material adapted to surround said metallic tube, and a tubular shoe or incasement adapted to incase the said metallic tube with surrounding springy material aforesaid, in combination with means for attaching the whole to a rim of a vehicle wheel, substantially as specified.

669,697. Clip for Attaching Inflators to Cycles. William G. Hunt, New Brighton, England. Filed Jan. 6, 1899. Serial No. 701,370. (No model.)

Claim.—1. In a clip for attaching an inflator to the frame tube of a cycle, the combination of a rigid strip having concave parts and hooked ends, elastic strips, one end of each of which is attached to the strip, and loops attached one to each of the strips in such a manner as to be capable of being hooked to the ends, substantially as shown and described.

669,833. Bicycle. Charles L. Horack,

Brooklyn, N. Y. Filed Aug. 4, 1897. Serial No. 647,031. (No model.)

Claim.—1. A cushioning device for cycles, comprising a pneumatic cushion divided into two chambers, an automatic valve adapted to permit flow of air from one chamber into the other, and a spring adapted to normally actuate said valve in the same direction, a passage permitting return flow of air being provided between said chambers.

669,872. Acetylene Gas Lamp. Charles C. Armstrong, Columbus, Ohio. Filed Nov. 15, 1899. Serial No. 737,082. (No model.)

Claim.—1. In an acetylene gas lamp, the combination of a generating chamber; a combined water inlet and gas outlet perforated tube located within said chamber; an impermeate plate slidably mounted on said tube and forming a movable wall for said chamber; a stationary perforated plate extending across the upper end of said chamber and said tube; a spring interposed between said movable wall and said perforated plate, whereby said wall will be held in close contact with the surface of the carbide; a burner located above said perforated plate; filtering means located within said tube; a water receptacle; and a controllable water feed for delivering water to the lower end of said tube, the water inlet to said tube forming an automatic seal against the passage of gas from said lower end, substantially as described.

669,879. Gearing for Bicycles. Christian Ganz, Washington, D. C., assignor of one-half to William A. Steiger, New York, N. Y. Filed April 11, 1900. Serial No. 12,476. (No model.)

Claim.—1. In a bicycle, a seat post provided with a forked lower end, a crank shaft journaled therein and provided with suitable pedals, a spur gear mounted upon said shaft, a shaft journaled in the said fork above said spur gear and extending outwardly on each side thereof, a pinion mounted upon said shaft and meshing with said gear, a disk secured to each extending end of said shaft, a drive shaft journaled in the rear fork of said bicycle and carrying the drive wheel, a pair of pinions suitably connected to the axle of said drive wheel, a shaft secured to each of the rear forks of said bicycle, a gear mounted upon each of the shafts.

669,881. Bicycle Traction Engine. Jack W. James, Memphis, Tenn. Filed Aug. 20, 1900. Serial No. 27,461. (No model.)

Claim.—1. In a bicycle traction engine, a supporting frame, a traction wheel suitably journaled therein, a steering wheel, means for steering said wheel, a vertical support, a rearwardly extending inclined frame, a knuckle-jointed telescopic shaft adjustably connected to said inclined frame, a propelling mechanism for said shaft, and means carried by said inclined frame and operated by said shaft for imparting motion to said traction wheel.

669,945. Bicycle. Joseph G. Moomy, Erie, Pa. Filed March 7, 1899. Serial No. 708,110. (No model.)

Claim.—1. In a bicycle, the combination with the frame; of a front and rear side gear; bearings for said gears arranged to retain said gears in adjustment independently of a shaft connecting said gears; and a shaft connecting said gears and arranged to transmit the motion of the front gear to the rear gear, said shaft being arranged to be passed through the rear gear into position without disturbing the adjustment of said gears.

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Bicycles

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According to the closest calculation we can make there will be about seven thousand more Juveniles sold this year than last and the enterprising dealer who handles the

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If he sells Elfin's he has every chance over his competitors in that he can show REAL advantages and TRUTHFULLY claim that it is the best Juvenile.

Our catalog contains a more complete description of the Elfin than we can give here. Send for it. Or ask to see our agent.

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Jones Co.,
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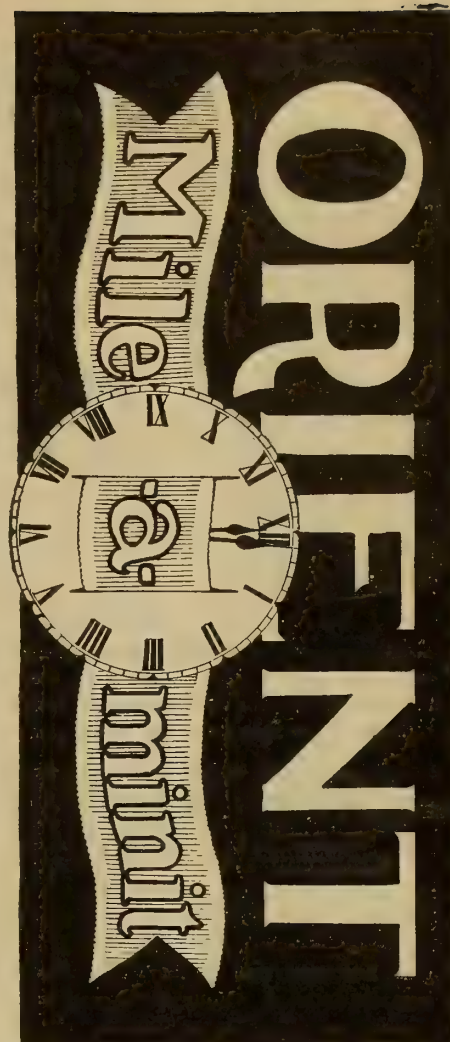
Another Big Week in Cycle Exports.

Last week was another of enthusing activity in the cycle export trade. France, Great Britain and Australia took shipments of value reaching into five figures, while Germany, Holland, Stockholm, Denmark and the Philippines went well over the \$1,000 mark. The record in detail, the week closing March 12, follows:

Antwerp—1 case bicycles, \$28; 11 cases bicycle material, \$235.
British Guiana—2 cases bicycle material, \$103.
British East Indies—10 cases bicycles, \$817.
Bremen—1 case bicycles, \$80; 6 cases bicycle material, \$500.
British Australia—426 cases bicycle material, \$12,411.
Brazil—2 cases bicycle material, \$20.
Batoum—6 cases bicycles, \$132.
Belfast—3 cases bicycles, \$138.
British possessions in Africa—5 cases bicycle material, \$371.
British West Indies—16 cases bicycle material, \$463.
Copenhagen—23 cases bicycles, \$560; 29 cases bicycle material, \$1,519.
China—2 cases bicycles, \$320.
Cuba—11 cases bicycle material, \$309.
Drontheim—6 cases bicycles, \$128.
Dutch Guiana—2 cases bicycles, \$84.
Glasgow—100 cases bicycle material, \$2,231.
Genoa—9 cases bicycles, \$1,197.
Gothenburg—5 cases bicycles, \$125; 1 case bicycle material, \$3.
Havre—490 cases bicycles, \$14,258; 17 cases bicycle material, \$1,100.
Hango—1 case bicycle material, \$58.
Hamburg—170 cases bicycles, \$5,011; 40 cases bicycle material, \$1,102.
London—555 cases bicycles, \$5,665; 132 cases bicycle material, \$6,266.
Liverpool—4 cases bicycles, \$125; 23 cases bicycle material, \$1,038.
Mexico—1 case bicycles and material, \$29.
New Zealand—12 cases bicycle material, \$750.
Philippines—72 cases bicycles and material, \$1,697.
Rotterdam—2 cases bicycles, \$150; 60 cases bicycle material, \$2,115.
St. Petersburg—3 cases bicycle material, \$723.
Southampton—1 case bicycle material, \$78.
Siam—1 case bicycle material, \$32.
Stockholm—133 cases bicycle material, \$2,164.
Uruguay—37 cases bicycles and material, \$825.
Wiesbaden—1 case bicycles, \$30.

Owners Were Responsible.

What is said to be the first verdict of the kind ever rendered in a British court is reported from the other side of the water. The Aberdeen, Scotland, School Board was mulcted in the sum of \$500 damages for a running down case in which a messenger employed by the board and mounted on a bicycle was the offender.



With one bound this bicycle has jumped into popular favor.

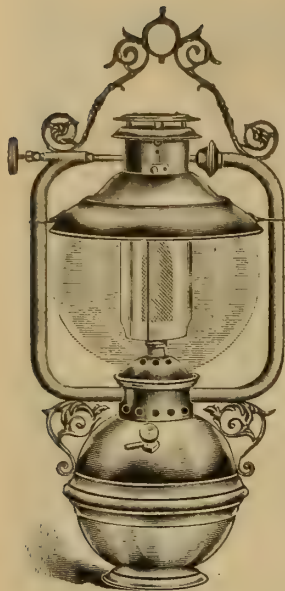
It is only what ought to be.

When a concern having the credit of making the most ingenious and harmonious mechanism known to the trade, frankly admits that the Orient Milaminit is the best bicycle it ever produced — favorable comment must ensue.

Look
into
this—will you?



Orient Leader.
Tailored Orient.
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Produce the finest artificial light in the world.
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A 20th Century Revolution in the Art of Lighting.

They darkness into daylight turn,
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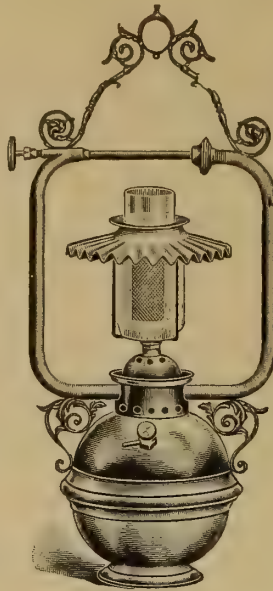
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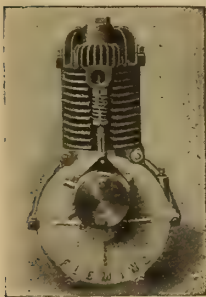
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attention solely to the improvement of it, thereby easily keeping ahead of everything else in that line on the market. Try it and convince yourself of it's being the best repair tool for single tube tires that you ever saw or tried. Your jobber carries them. If not, write us. THE MAGIC REPAIR TUBE CO., 250 Larrabee St., Chicago.

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ENAMELING, NICKEL-PLATING

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NOISELESS IN MUD, WATER OR
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The only chain having **Frictionless
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HAND AND FOOT PUMPS,

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15 cents per line of seven words, cash with order.

WANTED. Second-hand Crawford wheels and
Combination Tandem, in good condition.
CYCLE EMPORIUM, LEXINGTON, O. T.

Spring Frame From Germany.

Novelty, if nothing else, is evident in the construction of a spring frame bicycle invented by a German whose place of residence is Frankfort.

In this machine the seat tube has an upward connected saddle tube of nearly the same length, which is hinged on the main tube near the bottom bracket and can easily move in this hinge and also the horizontal slide connecting it with the top tube of the frame. Besides the latter there is a coil spring holding the saddle tube to the frame, which can be adjusted and made to suit the rider's liking.

When mounting an obstacle the spring will be pressed and the saddle will go slightly to the rear, while every movement occasioned by an obstacle in front of the wheels occasions the same rear extension of the spring. As soon as the obstacle is mounted and the spring has taken up the shock, the saddle swings back in its old position and gives therewith a forward movement to the rider of the cycle, which compensates for the loss of power when swinging backward. The larger the obstacle the greater is the swinging backward and forward impetus, which can be a little more than an inch without altering the distance between the saddle and pedals.

The frame and the bearings of the cycle receive a great protection from this swinging saddle, which divides the load and the jolts between the two wheels. The complete apparatus, which is made in three sizes for different weights of the riders, weighs less than two pounds, and can be fitted on any cycle frame.

PATEE MOTOR CYCLES, \$200.



No other make of Motor Cycle can maintain a speed anywhere near equal to this wonderful machine. It is light, strong, serviceable and reliable. Will go every time, any time and all the time. No experiment, no plaything, fully guaranteed. Money refunded if not as described. Big trade dis-

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HEAD-LIGHTS.

For sale by all jobbers and dealers.
20th Century brand of Carbide.

Foreigners are Favored.

What is alleged to be an unfair discrimination against English firms and in favor of foreign ones has been brought to light through a decision recently rendered by an English judge. If this decision is upheld, foreign firms doing business in England may give bills of sale without having them registered, a privilege denied English concerns.

It appears that an American firm was domiciled in America but carried on a branch of its business in London, which branch was conducted by a manager. They had there a factory and business assets to a considerable amount. An English firm had dealings with the American firm, and ultimately was compelled to sue it for payment. Judgment was obtained and execution was levied on the assets in London. The goods so seized were, however, claimed by certain trustees of the American firm under a deed of assignment for the benefit of their creditors, which was executed in America, and covered all the assets of the firm in whatever part of the world situated.

An interpleader issue was directed, and as a result an English court has decided that the American deed of assignment does not require registration here, and that the claim of the trustees is valid as against the English execution creditors. In short, a secret deed of assignment executed in America deprives all English creditors of their ordinary remedies against the assets of the foreign firm which may exist in England. The Financial Times urges a combination of traders to carry the case to the Court of Appeal, it being unreasonable to expect a single firm to go to the expense of such an appeal merely to establish a precedent and, if the present decision be affirmed, to furnish ground for the interference of the legislature.

He Attracted Attention.

If his purpose was to attract attention, the rider of a composite bicycle used for advertising a new brand of cigars who was seen in the neighborhood of Wall street one day this week was completely successful.

He had taken an Eagle high bicycle, with a big wheel of 50 or 52 inch diameter, and rigged it up to suit his purpose. The handle bar had been taken out and the front bone cut off at its lower extremity just above the forks. On this bone had been built a wooden platform, with a crosspiece for a handle bar and designed to carry a lot of advertising hangers. At the lower end was suspended a small wooden wheel, about eighteen inches in diameter, fitted with a pneumatic tire.

The rear wheel had a 1 1/4-inch cushion tire, and was driven by pedals in the usual manner. In place of a saddle he had a piece of wood covered with a number of thicknesses of bagging. In the triangle formed by the frame were two tin signs, one on each side, while another one was placed on the lower part of the wooden platform in front.

The rider dismounted in front of a cigar store and went inside, while a curious crowd collected around the machine and wondered and discussed it.

Cushions for bad Weather.

Mention cushion tires to the average rider and the chances are that he will not know what is meant. Still less will he be able to explain just how they differed from the solid tires which preceded them. The pneumatic has driven all other types of tires out of the field, leaving only memories in the minds of those who used the solids and cushions of the early days.

In England, however, the cushion tire still maintains the struggle, and no insignificant number of machines are shod with it. One rider writes to his favorite journal saying:

"I think it well worth while to keep an old cushion-tire machine to plug about in rain and mud during the winter, and while the new stones on the roads are working into place. No fear of punctures; if you get a gash or two it does not matter, and it saves pounds in the life and appearance of one's best mount."

Low Rates to the South.

Excursion tickets at reduced rates are now being sold by the Chicago, Milwaukee & St. Paul Railway to the prominent resorts in the South, including Jacksonville, Fla., Mobile, Ala., New Orleans, La., Savannah, Ga., El Paso, Tex., which are good for return passage at any time prior to June 1st, 1901. Information regarding rates, routes, time, etc., can be obtained on application to any coupon ticket agent of the Chicago, Milwaukee & St. Paul Railway. ***

Another Hooley Dividend.

That prince of promoters—or, as some of his victims would be more apt to say, of swindlers—Ernest Terah Hooley, is brought to mind by an item in an English journal to the effect that his creditors are expecting shortly to receive a second dividend. It will amount to only two shillings in the pound—10 per cent—but it will probably be none the less welcome on that account.

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***



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All American wheelmen who desire to keep themselves posted upon matters concerning the cycle in Europe, its trade, mechanics, and sport, should subscribe to

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AND BICYCLING AND TRICYCLING TRADES REVIEW.

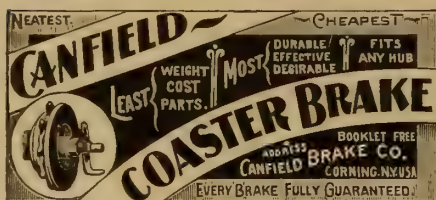
The only recognized authority of English trade and manufacture. Sent post free to any part of America for one year, \$3.25. American manufacturers having novelties in machines or sundries to introduce should advertise in

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Members of the American Trade visiting England are invited to call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street, Ludgate Circus, London, E. O.



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Lv. Boston	10.45 A.M.	2.00 P.M.
Due Albany	4.10 P.M.	7.35 "
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" Buffalo	11.40 "	
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The Finest Pullman Cars will be run on these trains. Tickets and accommodations in sleeping cars for sale at City Office, 366 Washington Street and at South Station.

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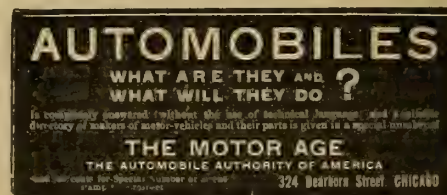
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D. J. FLANDERS, Gen'l Pass. & Ticket Agt.
BOSTON.



The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLII.

New York, U. S. A., March 28, 1901.

No. 26

MOTOCYCLES AT THE SHOW

An Interesting Exhibit, but Some Absentees—Thomas' new Tandem.

Chicago, March 25.—Motocycles form one of the features of the Automobile Show which opened here on Saturday last.

The E. R. Thomas Motor Co. have a striking array, in all ten machines: six bicycles, two tricycles, one quadricycle and one tandem, the latter the first Thomas machine of the sort that has been shown. As usual, the Thomas people are busy making converts, one or more of their motocycles being almost constantly on the track. In addition, Ralph Temple also shows a Thomas bicycle and tricycle.

The C. H. Larson Cycle Co. show three motocycles; one 'Orient bicycle and two Sycamore bicycles, the latter of their own make and fitted with Banker motors.

One of the Sycamore's is of the Werner front drawing type, with the motor mounted on the head or front fork; the other is a new machine, just completed, which, as the Larson people say, is built up entirely of stock parts, mainly tandem fittings. The motor is stowed back of the seat mast, which is itself brazed to the lower tube, just forward of the crank bracket and not to the crank bracket itself; the rear stays and forks are of the so-called crown type, thus affording ample room for the motor, which is chain driven. The coil employed is of Banker's origination and is of about one-half the usual size, weighing but one and one-half pounds. Banker claims it generates as fast and warm a spark as the coils weighing two or three times as much. It is made of extra fine wire wound in a different fashion from the usual. Mr. Banker says five of his bicycles were sold the first day of the show.

The Patee and Mitchell motor bicycles, which were expected, failed to put in an appearance.

Aside from the motocycles there is a considerable display of cycle stuff. Temple and Larson both show bicycles and a number of parts and accessories. Solar, Twentieth

Century, Admiral, Bundy and Hine-Watts lamps are in evidence, likewise Kelly bars, D. & J. hangers, Veeder cyclometers, Mossberg bells and wrenches and several other accessories.

Baldwin Re-enters Field.

The Adjustable Chain Co., West Upton, Mass., has been organized through the efforts of E. A. Baldwin, and is now ready to undertake the manufacture and marketing of the chain from which the company takes its name. In addition to being detachable, this chain is also adjustable for wear, this adjustment being made possible by the shape of the pins. Each end of the pins has two flat slots and two rounded slots, and by turning these pins so that the flat or the rounded slots engage with the side links the chain is lengthened or shortened, as the case may be.

All Because "the" was Added.

Judge Emery, in the County Court at Buffalo, N. Y., last week, set aside two executions which were secured by the United States Standard Drawn Steel Co. and the Alling & Curtis Mfg. Co., against the Niagara Cycle Fittings Co. It was claimed the executions were improperly served, and that the name of the defendant company was improperly inscribed in the papers, because the article "the" was prefixed to it.

Ready for Business.

With an authorized capital of \$10,000,000 the Delaware Mfg. Co., of Delaware, O., with a branch office at Cleveland, O., inform the Bicycling World that they have started business. They will manufacture and deal in bicycles, automobiles, sundries and light hardware.

Hoffman Seized Sewing Machine.

To satisfy a judgment for \$51, held by the Hoffman Bicycle Co., Deputy Sheriff Adams, of Rochester, N. Y., last week seized a sewing machine belonging to William Herbst, of that city.

May Have Bicycle Squad.

It is expected that the forthcoming report of the Cleveland (O.) Director of Police will strongly recommend the establishment of a bicycle squad of policemen in that city.

DOUGHTY AND HIS BILL

Passes Assembly With Little Opposition—Its Provisions Highly Satisfactory.

By a decisive vote of 80 to 26 the Doughty bill passed the New York Assembly on Tuesday, and there appears to be every prospect that substantially the same act will speedily receive the approval of the Senate.

A few months ago scarcely anyone would have ventured to prophesy such a highly satisfactory outcome to the pending legislation regarding motor vehicles. They have hitherto been permitted the use of the roads largely on sufferance, excluded from the parks and made the target for legislation of all kinds. The task of harmonizing all the conflicting interests has been successfully accomplished, however, and what may well be termed the Liberty Bill of the motor seems almost certain to become a law.

Some of the more important provisions of the bill are as follows:

In no city or town can the local authorities make regulations calling for a speed of less than eight miles per hour; nor in the country districts of less than fifteen miles.

No bicycle, tricycle, or motor vehicle, however propelled, shall be excluded from any public road or park, unless other pleasure carriages are also excluded.

The power of making rules calling for the carriage of lamps, bells, etc., of stopping to permit restive horses to pass, etc., is retained by the local authorities.

One of the St. Louis Relics.

Homer A. Canfield, of the firm of Canfield & Sachtleben, dealers in bicycles and bicycle supplies, which made an assignment in 1898, filed a petition in bankruptcy last week in the United States District Court at St. Louis, Mo. He prays to be released from his share of the debts incurred by the firm during the time they were in business. His liabilities are given as \$18,793.23. His assets consist of a gold watch and two suits of clothing, valued at \$60.

LIKE THE DAYS OF '95

California Dealers Can't get Bicycles Fast Enough, Says H. T. Dunn.

Chicago, March 25.—To all and any in the trade who may feel the need of a spring tonic, a twenty minutes' talk with Harry T. Dunn, manager of the Fisk Rubber Co., is a perscription that is earnestly recommended.

Enroute from 'Frisco to Chicopee Falls, Dunn stopped off here last night to have a look in at the Automobile Show. He brought with him a generous touch of the spirit that pervades the cycle trade of the coast.

"They are simply hungry for bicycles out there," he said in answer to the question. "It reminds one of the conditions that prevailed in the East in '95. No, that is not putting it too strongly. The dealers can't get wheels fast enough. Purchasers are waiting two and three weeks to have their orders filled; they are haunting the stores and almost begging the dealers to hurry their bicycles.

"Why, in the little town of Fresno, one of the agents has orders calling for forty bicycles per week for ten weeks, and in Los Angeles the most disconsolate man in a dealer who has orders in plenty, and who claims he is being forced out of business by the failure of the factory in the East to send him goods.

"It is not the cheap bicycles that are in demand, either," went on Mr. Dunn. "The people want bicycles and are willing to pay for good ones. Such wheels as the Yale and the Racycle are having a tremendous run!"

In addition to San Francisco and Fresno, Dunn visited Oakland, Los Angeles, Pasadena, San Jose and Sacramento, and in each place found the conditions the same. Cycling interest is at white heat.

Mr. Dunn also ran up to Portland, Oregon, where he found a less favorable state of affairs. Two of the larger houses there are at war and prices are suffering, and the trade generally feeling the effects.

More Tire Fluid Suits.

Evidently there is to be no let-up in the tire-fluid war. The Buffalo Specialty Mfg. Co. seem determined to retain the aggressive, and in addition to a number of suits which their attorneys are preparing to bring they have begun action against two well-known firms for infringement of their Dun-yea patent on tire fluid. The concerns referred to are the McIntosh-Huntington Co., of Cleveland, O., and the Manchester Hardware Co., of Manchester, N. H., and the suits were brought in the United States Court at Buffalo. The plaintiffs demand a complete accounting for all sales and a judgment equal to three times the actual damages sustained.

Well Named Sterling.

From time immemorial bicycle wrenches have been regarded as facile princeps in the matters of lightness, smallness and neatness, easily putting to shame the undoubtedly excellent but far from beautiful patterns made for general workshop use. The bicycle wrench was in keeping with the bicycle; and more than this could not be desired, much less expected.

Even bicycle wrenches have improved with the times, however, and this is made plain by an examination of the Sterling, the latest



product of the Frank Mossberg Co., Attleboro, Mass. Measuring only five inches in length and weighing but 4½ ounces, it takes in a range of work measuring 1¼ inches, full. The jaws are of unusual strength, and make the wrench capable of doing heavier work than it will ever be called on in connection with bicycles. When it is added that the workmanship and finish are quite up to the mark it is small wonder that the orders received for it are far in excess of the company's anticipations.

Busy in Baltimore.

For a town that is heartily damned by the majority of bicycle travellers as being dead, in a cycle sense, Baltimore is looking up. For several years past all moves recorded there have been in one direction—that of retrenchment.

It is refreshing, therefore, to hear of a dealer being compelled to seek larger quarters to accommodate an increased trade. The firm in question is that of Howard A. French & Co., who are leaving their Eutaw street quarters to occupy the old Cline Bros. store at 304 West Baltimore street. The size and attractiveness of this store is known to all well-posted tradesmen, it having been for fifteen years used by the Clines for the sale of bicycles and sporting goods.

The necessity for this move is ascribed by French & Co. to the fact of their having made a leader of the Yale line. So well has it taken that they have had to increase their original order for 1901 machines many times over, and still they are calling for goods at a rate that keeps the Yale factory busy supplying them.

No 20th Century-Badger Deal.

Chicago, March 25.—A jocular conversation at the Automobile Show led to the publication and circulation of a report that the Twentieth Century Mfg. Co. and the Badger Brass Mfg. Co. were making ready to consolidate. When asked about it, both the Badger and the Twentieth Century people laughed, said there was absolutely nothing in the story, and explained how it grew out of a joking remark.

CYCLIST SOLDIERY NOW

British War Office Calls For Eight Companies—Government Furnishes Cycles.

Quietly, as—in their opinion—befitted the occasion, the British War Office has issued an army order which states that it has been decided to raise eight companies of infantry cyclist volunteers for service in South Africa.

The strength of each company will be one captain, four subalterns, one sergeant-instructor (to act as pay sergeant), four sergeants, two buglers, six corporals, one hundred privates (including the regulation number of lance-corporals), and two stretcher bearers—total, 120.

Officers will be selected, and the composition of each company will be controlled by the general officer commanding the district in which it is raised. Every volunteer must enlist for as long as the war lasts. He must be not less than twenty nor more than thirty-five years of age, be of good character, medically fit for service, and up to the physical standard of an infantry recruit as laid down in the regulations. He must also have rendered himself efficient in 1899-'90 or 1900-'01, have obtained at least 60 points for class firing, or have made 100 points in firing his reservist's course, and be a thoroughly good cyclist. Married men may be accepted, facilities being given when possible for their family joining them in South Africa on the termination of hostilities should they desire to remain in the country.

Each volunteer will receive from the date of enlistment pay and allowances of his rank as an infantryman of the regular forces. On completing his period of service, or on discharge as medically unfit after embarkation, he will receive a gratuity of £5 in addition to any gratuity given to the troops at the end of the war. Volunteers will not take their own cycles.

Wilmington Organizes.

Since the old Cycle Board of Trade passed into a state of innocuous desuetude a year or two ago, there has been little pulling together on the part of the tradesmen at Wilmington, Del. The evils of price cutting and reckless competition have been particularly marked among the repair men, who fought for the diminished business just about as hard as they had formerly done during the boom years when there was a plethora of it.

Acutely conscious of the fact that this lack of concert was ill advised, a call for a meeting of tradesmen was issued last week, and the result was the organization of an association to maintain uniform prices on all bicycle repairs. To this end a schedule was prepared, and each dealer in the city doing a repairing business signed an agreement to adhere to it. The schedule has been printed and is being distributed to the members of the association.

INFANCY NO INVALIDATION

Minnesota Judge Rules That Minors can be Held to Contracts for Purchases of Bicycles on Instalment Plan.

It is probable that hereafter minors, in the State of Minnesota at least, will exercise a little more care in seeking to evade contracts made by them for the purchase of bicycles on the instalment plan. The plea of infancy will not serve them, as in the past, and dealers no longer need fear that they are entirely without recourse where they have been induced to make such sales.

All this comes about through a suit tried in the Minnesota Fourth Judicial District Court, reference to which, as being in progress, was made in last week's *Bicycling World*. In his ruling Judge Brooks said that while the bicycle was not, strictly speaking, a necessity, its use had become so common that its purchase by an infant could not be said to be an unreasonable or unfair contract. This being so, he held that the plea of minority could not be regarded as nullifying the contract.

IN A NUT SHELL.

It appears that on April 28, 1900, the Great Western Cycle Co., of Minneapolis, sold to Willie Leaf, a minor, a \$40 bicycle, of which amount \$5 was paid in advance and \$7 per month contracted to be paid for seven months. Of this \$22 was paid, and then the boy refused to pay the balance. The Great Western Co. replevined the bicycle, but was sued by Leaf before a justice and given judgment against for the amount paid by Leaf, \$27. They then carried the case to the District Court, and obtained a sweeping verdict in their favor, being given the bicycle, while the amount paid on it was offset against the use Leaf had made of it.

The form of contract signed by Leaf is appended:

FORM OF AGREEMENT.

"This agreement witnesseth that I, Willie Leaf, have purchased of the Great Western Cycle Co. the right to the temporary possession of Spalding wheel No. —, for which privilege I have paid to said Great Western Cycle Co. \$5 in advance, and do hereby agree to pay the further sum of \$35 in amounts and at times as follows—\$7 per month until the full amount of \$40 has been paid; that by prompt payment by me to said Great Western Cycle Co., at their office, in the city of Minneapolis, of the amounts and at the times as stated above, I shall be entitled to retain the temporary possession of such machine, and that after all of said payments (which I hereby promise and agree to pay) shall have been fully made and completed in the amounts and on the dates as stated, then, on the payment by me to said Great Western Cycle Co. of the sum of one cent, the said Great Western Cycle Co. will

execute to me a bill of sale of said machine above described.

"And in consideration of the said obtainance of temporary possession of such machine by me I further agree that I will use said machine carefully, that I will not sell or remove it or suffer it to be removed from the premises except for ordinary use by myself only; and I further agree that I will not leave said machine where it will be exposed to danger of being stolen or injured. I further agree not to lend said machine to any person until I shall have fully complied with the conditions of this agreement; and it is distinctly agreed that if I shall make default in any of the payments by me to be made, or in any of the conditions on my part to be kept and performed, then and in that event the said Great Western Cycle Co. is authorized and empowered at their election to at once, without notice, resume possession of said machine, and to take the same from any premises where the same may be situated,

THE JUDGE'S RULING.

Judge Brooks handed down the following decision, basing his finding on the memorandum following thereafter:

"1. That plaintiff is entitled to the immediate possession of the bicycle described in said complaint, and that the same was at the commencement of this action unlawfully detained from said plaintiff by said defendant.

"2. That said defendant is not entitled to recover of and from said plaintiff any sum whatsoever on account of the counterclaim alleged in his answer in this action.

"Let judgment be entered accordingly.

FACTS IN THE CASE.

"On April 28, 1900, the defendant, who was then a boy under the age of seventeen years, in terms entered into a contract whereby he agreed to purchase of the plaintiff a bicycle and to pay therefor the sum of \$40, payable monthly in instalments of \$7 each, and whereby it was in effect also agreed that the title to the wheel should remain in the plaintiff until fully paid for. Pursuant to such agreement the defendant received the wheel and used and retained it until about the time this suit was brought. And pursuant to the agreement so made defendant paid to plaintiff part of the agreed purchase price. Thereafter, default being made in the further payments, plaintiff brought this action of replevin to recover the possession of the wheel in question.

"The complaint is in the usual form in such cases. The answer sets forth the defendant's infancy and a rescission of the contract on account thereof, and demands judgment for the full amount of the moneys paid. And it is proven that the reasonable value of the use of the wheel during the time the defendant had it in his possession exceeds the amount paid to plaintiff as above stated.

WHAT THE PLAINTIFF CAN DO.

"The question presented is whether the defendant, because of his infancy, can recover back the money paid, without any de-

duction or allowance for the use of the wheel or for its diminution in value while in his possession. Properly speaking, the plaintiff does not seek to rescind; he merely seeks to enforce a right in express terms conferred by the contract under which the bicycle was obtained by the defendant. The defendant, on the other hand, bases his claim upon his alleged right to rescind the contract because of his infancy, and repossess himself of the money paid, to the same extent as though he had never received any consideration therefor.

HOW THE AUTHORITIES STAND.

"The authorities in other States are not in harmony upon this question. In Massachusetts the right of the infant to recover in such case is sustained. *McCarthy vs. Henderson*, 138 Mass. 310; *Pyne vs. Wood*, 145 Mass. 558. In New York the Court of Appeals has reached a contrary conclusion. In *Rice vs. Butler*, 160 N. Y. 578, an infant bought a bicycle under a contract substantially the same as the one in question, and it was decided that the infant, "having had the use of the bicycle during the time intervening between her purchase and its return, ought in justice and fairness to account for its reasonable use or deterioration in value." And it was accordingly held that when the value of the use in such case equals or exceeds the money paid, the infant is entitled to no relief. The doctrine thus announced, in the case last cited, appears to have received the approval of the Supreme Court of this State in *Johnson vs. Northwestern Mutual Life Insurance Co.*, 56 Minn. 365.

BICYCLE ALMOST A NECESSITY.

"It may be that a bicycle is not, strictly speaking, within the meaning of the law a necessary. But its use has become so common among all people that its purchase by an infant at a fair price, though made on the instalment plan, cannot be said to be an unreasonable or unfair contract. There is no suggestion in the evidence in this case that this transaction was not a fair and reasonable one, and free from any fraud or bad faith on the part of the plaintiff. So far as payments have been made, the purchase is an executed one, and there appears to be no reason in principle why, when the infant elects to rescind such a contract, the money paid should not be applied, so far as necessary, to reimburse the seller for the use of the wheel during the time the purchaser had it under his control. He is entitled to recover the moneys paid so far only as he can do so without injury to the rights of the seller by depriving him of the use of the machine without compensation. And inasmuch as it is found that in this case the value of such use exceeds the amount of money paid, the alleged counterclaim is unproven. To hold otherwise would be to convert the privilege of infancy into a sword instead of a shield, and make it an offensive in place of the defensive weapon which the law contemplates."

Century Cushion Cycles.

THE WHEEL OF THE COMING CENTURY.

We cannot tell you all about it here, but if you will write us we will send you our new catalogue and prices to agents.

MILWAUKEE CYCLE CO.,
MANUFACTURERS OF CENTURY CYCLES,
249-251 Lake St., MILWAUKEE, WIS.



Fisk Tires

A Comparison.

Here are two horses, we'll say !
They are both to the uninitiated "just horses," and have alike two eyes, two ears, four legs. But there is such a difference !
One is Jim, the hack horse, with a lovely case of heaves and a predisposition to sulk ; the other is Ethelbert, the thoroughbred, with an enviable record and a pedigree as long as your arm.
Which one would you choose ?
There are tires and tires ! They look alike, are called "just the same," but what a difference ! One is the Fisk Tire, than which there is no better for comfort, speed and general all round service ; the other, the cheap, department store "just as good" tire—"just as good" until one day something happens.
The Fisk is as much superior as Ethelbert is to Jim, the hack horse.
Do you want a thoroughbred tire or a plug ?

FISK RUBBER COMPANY, Chicopee Falls, Mass.

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, MARCH 28, 1901.

Grades of Buyers, too.

It is no easy matter to keep track of the whirligig of time.

The orthodoxy of to-day may be the most rampant heterodoxy of to-morrow or the day after, and the faithful meeting-goer—from the country districts, for example—who prides himself on his absolute regularity is apt to meet with a rude awakening in consequence.

Only a few years ago everybody and his neighbor was daft over cycling. In season and out of season they rode, talked, argued and rode. Nothing seemed to be able to abate enthusiasm or to dull appetite.

As everybody rode, consequently everybody bought. The only question was where would they buy, and each maker and dealer sought to answer that question in a manner which would be most conducive to the swelling of his bank account.

In the case of each all was fish that came to his net. He might have a fondness for aristocratic patrons, but he never had a

thought of scorning the trade of the men and women of humbler clay. Their money was just as good as was that of the high and lofty portion of society—sometimes much more certain.

To attract customers, to persuade prospective buyers that his goods were best, the dealer, or maker, as the case might be, advertised freely, and without much thought as to whether the paper favored went to high or low grade people.

It has been reserved for the present day to have this element introduced. The advertising manager of a big metropolitan daily, one more than slightly tinged with "the yellows," who approached a local manager on the subject of advertising, was told that he (the cycle manager) feared that the paper's constituents were not high grade enough to purchase his bicycles.

A laugh is the first offering this proposition is likely to meet with. To think that in this year of the bicycle's decadence a retail manager should be more solicitous about the grade of a paper's readers than as to whether they are interested in bicycles! What an absurdity!

But is it absurd? The manager reasoned that while the paper was read by bicycle buyers they were of a low instead of a high grade; consequently if they decided to buy they would pass his machines by, they being the best and highest priced, and select machines of lower grades. If his premises are granted his reasoning is sound.

Point is given to the incident by the fact that the paper referred to, so the advertising manager says, is sometimes accused of going to readers of too high a grade, and refused business on that account.

What a time he must have in squaring himself with his different critics!

After all, the incident is a good sign. It shows that cheap buyers are buying cheap bicycles and high-grade buyers are buying high-grade bicycles.

Could anything better, anything more logical, be asked?

Driven by Necessity.

Constant dripping wears away the hardest stone, says the old saw, and its aptness is attested to by the news contained in the latest English cycling papers to the effect that the British War Department has at last consented to raise a regiment of cyclist soldiers for service in South Africa.

It has taken wellnigh twenty years of agitation, of discussion, of assertion and of

demonstration to penetrate the barrier of red tape which rears itself like a Chinese wall around the big edifice on Downing Street.

In fact, there is not the slightest doubt that even the luminous lessons of the last year and a quarter in South Africa would have gone for naught had not the need of the War Department continued to be great and always increasing.

The constant cries for remounts, and ever more remounts, for the cavalry and mounted infantry, contrasted with the sight of cyclist soldiery doing their thirty, forty, fifty or even one hundred miles a day, and thinking no great shakes of it, did nothing to remove the bandage from the eyes of the purblind officials. Only the direst necessity has caused them to recede from their position sufficiently to make a trial of the cycle.

The result can scarcely be other than satisfactory. In fact, unless all signs fail, the cycle regiment will speedily make such a name for itself that it will at a bound leap into a place in the military economy of every country from which it will never be displaced.

Government cycles will be used exclusively. And here is where the British manufacturer will chortle to himself.

British soldiers on any but British cycles would be an anomaly too awful to even contemplate.

In the present condition of trade there, close to one thousand cycles, with accessories galore, will be a pretty order. It would remove the blight from on more than one concern, could it secure it.

But of course the specifications will be something fearful to contemplate, even by the British cyclist, whom few things daunt.

It's a safe wager that the weights of the machines, with fittings, will reach fifty pounds.

Ground for Hopefulness.

Even the most undeviating pessimist, he who habitually paints everything in the darkest colors, must admit, if brought to bay, that the outlook for motorcycles is a bright one.

He may shake his head and make pointed allusions to the ineradicable tendency of cycle tradesmen to look only at the bright side of the mirror when it is hinted, with due hesitation and humility, that the season's prospects in ordinary bicycles are unusually good.

He has the ready answer—and rarely hesitates to make it—that this hopefulness pre-

vailed last spring, and the spring before that, etc., and would in all probability continue to do so forever.

But when it comes to motorcycles, and especially motor bicycles, he is—if at all candid—compelled to pause. The worst he can say is that advance sales are not always to be taken as a safe guide, and that the expected buying by the public may not materialize.

Against this is to be set the better opportunity the dealers have for gauging their public. They have cut their eye teeth, and were the demand entirely problematical it may be set down as certain that they would go much slower in the matter than they are doing now.

What renders this doubly certain is the necessity for buying motor bicycles on very different terms from those ruling where cycles are concerned.

It would not be a difficult matter to persuade dealers to take a chance on motor bicycles if it were only necessary to secure an agency, place a stock order with specifications to follow, and at most take one sample machine. The interest already apparent would justify any dealer, no matter how cautious, in doing this.

But it is a very different matter to transfer the risk of the venture from the maker's shoulders to his own by paying cash in advance, by giving shipping directions and in other ways departing from the unwritten laws of the cycle trade.

Yet this is just what dealers are doing, and without hesitation. They feel that the success of the motor bicycle is assured and that they must be prepared to supply the demand, and thus reap the reward which may reasonably be expected.

Conversation with any traveller who has been selling motor bicycles strengthens the belief that they are right.

Have Accomplished Good.

As the proof of the pudding is said to be in the eating of it, so the continued existence of dealers and repairers' associations makes it a fair inference that they accomplish good.

Were it otherwise they would fall by the wayside, just as did the cycle boards of trade, which were so numerous a few years ago.

The latter set out to accomplish too much. Could the performance have equalled the intention they would have had a different ending. But jealousies, indifference and a lack

of concerted effort attended them, and the end soon came.

With a less ambitious programme, and one appealing directly to the most insignificant member, the new associations have nearly all accomplished at least a part of what they set out to do.

Consequently, nearly all the price schedules put in force last season are continued—usually in an improved form—and new ones have been added. The example of one city or town is followed by others, and while it is too much to say that the schedule is always lived up to, a considerable improvement undoubtedly takes place, and promise of even better results is held out.

The matter is one that is well worth the attention of that portion of the trade which has so far held aloof. Inquiry will show that the members of the associations are, as a rule, pleased with the experiment, and have not the slightest thought of taking a backward step.

Can't Plead Baby Act.

In giving partial assent to the proposition that a bicycle is a necessity the Minnesota judge quoted in another column is well within the lines of common sense.

Presumably he has the law on his side also, for not only was his decision given after careful consideration, but he quotes chapter, verse and line from the rulings of other legal luminaries to the same effect.

Undoubtedly it is poor business policy to sell bicycles to minors. But there are sometimes extenuating circumstances. The buyer may successfully conceal the fact of his immaturity, or he may have the support of his parents or guardians in his efforts to become the proud possessor of a full-fledged bicycle. In either case the dealer may feel that he is justified in taking the risk.

When the unregenerate minor becomes tired of paying the instalments, however, or for any other reason ceases to do so, the dealer finds himself in trouble. The infant claims the full benefit of his infancy and strives to throw all the responsibility of the proceeding on his unfortunate antagonist.

In such cases the latter has usually regarded his position as a bad one and made the best terms possible with the cute youngster.

The latter had no standing in a court of law, and could wash his hands of the whole matter. The dealer could not enforce his contract, and was ready to compromise on any decent terms.

In the case under notice, however, the dealer had the courage to carry the case to a higher court. Under Judge Brooks's decision a fair and reasonable bicycle contract can be enforced, even if entered into by a minor.

With this weapon at his hand a dealer can have some hope of coming out on the right side, even if he should be rash enough to deal with a legal infant.

To be on the safe side, however, it is best to have the contract executed by some one authorized to act on behalf of the minor.

These are the days when the heart of the repair man is made happy by the steady influx of work. With him, as with the dealer, it has come to be of great importance to get the cream of the early business, and if he can work it through quickly it will pay him doubly. In fact, his best chance of getting any profit is to make a big turnover; and this is possible only where he has prepared for the rush and knows how to go about handling it.

Weights, which were once the most important detail of the new season's bicycles, even down to the fraction of a pound, are now seldom mentioned in catalogues. Furthermore, customers frequently purchase without even mentioning the subject. They have learned that there are more things to be considered in buying a wheel than the mere matter of weight, and that weights can be juggled with so successfully as to almost defy detection.

To judge by the drayloads of crated bicycles which are seen in front of the various cycle stores these days, ample stocks are being laid in. There is nothing like being prepared, and each dealer understands now that delays in delivery are more than dangerous—they are destructive of all hope of a successful season. So they are taking time by the forelock.

According to the Irish Cyclist it is the "free wheel," or coaster brake, which has now become the standard specification with many makers. If a fixed gear is wanted special instructions to that effect have to be given.

Cycle store windows have a wonderful attraction to the passerby on sunshiny days now. Attractive displays are worth a hundredfold more than they cost.

DEALERS IN DUNKIRK

Make Public the Price Schedule Adopted at Their Recent Meeting.

Not to be behind the times, Dunkirk has fallen into line and adopted a schedule of repair prices which will be charged during the present season. Under the name of the Bicycle Repairmen's Union, an organization has been completed, nearly all the dealers and repairmen in the town having given it their support.

While the prices are in a few cases, such as on tire repairs, etc., unusually low, in the more important jobs they are about the same as those prevailing in other localities. The schedule follows:

ENAMELLING.

Plain black.....	\$3.00
Plain colors, maroon, red, tan, wine, dark blue, green.....	3.00
Stripes, extra.....	.50
Plain colors, white, pink, light blue and tints.....	3.50
Stripes, extra.....	.50
Enamelling rims, per pair.....	.50
Bluing spokes, per pair.....	.75
Hubs, extra, per pair.....	.25
Air drying, frame, forks and cleaning.....	2.50
Enamelling tandem.....	8.00
Renickelling all bright parts.....	5.00

FRAME REPAIRS.

New head.....	\$2.50
Head connections, outside.....	1.50
Head connections, flush.....	2.00
Top bar.....	3.00
Seat post cluster.....	2.50
Seat post upright.....	3.00

REAR FORKS.

Upper and lower, \$1.50 each; per pair.....	\$2.50
Rear fork ends.....	1.00
Rear fork lugs.....	1.50
Braces, per piece.....	.75
Hangers.....	3.00

FRONT FORK.

New front fork, complete.....	\$3.50
One fork side.....	1.50
Two fork sides.....	2.50
Fork stem.....	1.50
Fork crown.....	2.00
Fork ends, 75c. each; per pair.....	1.25
Brazing "loose" fork stem.....	1.00
Brazing "loose" fork side.....	1.00
Straightening fork.....	.50 up

FRONT WHEEL AND REAR.

Front wheel rim, plain rim.....	\$2.00
Front wheel rim, colors.....	2.50
Clincher rims, plain.....	2.50
Clincher rims, colors.....	3.00
Spokes, set.....	2.00
Spokes, single.....	.25
Spokes, two.....	.40
Ten cents additional for all over two spokes.....	

TIRES.

Cementing tires, apiece.....	\$.15
Cementing tires, per pair.....	.30
Punctures, double tube.....	.35
Patching shoes.....	.15 to .25
Single-tube punctures.....	.25
Neverleak.....	.50
Inner tubes.....	1.50

VALVES.

Metal valve, put in.....	\$.50
Valve stems, put in.....	.50
Valve, metal stems.....	.25
Valve, rubber.....	.15

Valve, metal.....	.15
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HUB.

Front and rear axles.....	\$.50
Front cones.....	.50
Rear cones.....	.50
Crank cones.....	.75 to 1.25
Cups, same as cones.....	
Special cones.....	.75
Cranks, \$1 each; per pair.....	1.75
Crank axles.....	1.50 up
Crank keys.....	.25
Crank key nuts.....	.10
Pedal cones.....	.25
Pedal pins.....	.75
Chain blocks.....	.15
Chain sides.....	.15
Chain rivets.....	.15
Chain nuts (bolt and nut 10c.).....	.05

SPROCKETS.

Rear sprockets.....	\$1.50
Front sprockets.....	2.50 up
Lock nuts.....	.50
Cleaning wheels.....	1.00
Truing wheels.....	.25 up
Enamelling, plating and cleaning.....	10.00
Plating bars, seat post, cranks and head fittings and front sprocket.....	3.50
Handle bars.....	1.00
Rebuilding frame.....	10.00
Morrow hubs.....	7.50
Balls up to 5-16, per dozen.....	.15
Balls 5-16 and up, per dozen.....	.20
Single spoke and nipple.....	.10
Three spokes for.....	.25
Single rims, plain, each.....	.50
Single rims, stripe, each.....	.75
Clincher rims, each.....	.75
Clincher rims, enamelled, each.....	1.00

GRIPS.

Plain grips, per pair.....	\$.25
Wood frame leather grips.....	.35
Indestructible leather grips.....	.50
Cleaning tandem.....	2.00
Chain guard, complete.....	.75
Rear guard, complete.....	1.25
Lacing.....	.50

Cole Makes Emphatic Denial.

Tire fluid matters are very much to the fore just at this time. What with suits past, present and to come, with statements and counter statements, and declarations of a determination to continue the contest to the bitter end, there is likely to be something doing for a good many months to come.

So far from having abandoned the defence of the W. G. Shack action, and thereby virtually admitting the validity of the Duryea patent on tire fluids, G. W. Cole & Co., for themselves and their associates, make a vigorous and unconditional denial of the allegation. On the contrary, they say, they have been endeavoring for two years to bring the Shack suit to a conclusion, but are prevented by the fact that it is "up to" the plaintiffs, the Buffalo Specialty Mfg. Co., to make the next move, and this they decline to do. Furthermore, they deny in most unequivocal terms that the Duryea patents give their owner any monopoly of the manufacture of tire fluids. Upon these two statements they are willing to rest their case, and say they will welcome a determination of the matter in the courts.

Referring to the Curlin patent, Cole & Co. assert that this has no bearing whatever on fluid used in tires, and therefore has nothing to do with this case.

WHERE WORKMEN WHEEL

Thereby Bringing Close Together Suburban Homes and City Factories.

Wherever the bicycle has gone—and it is practically ubiquitous—it has changed or modified the daily lives of the people who use it in a manner that even yet is scarcely understood.

Nowhere has it gone into more general and constant use than in New England. The following pen picture from a Western journal of its wonderful influence on the life of one Massachusetts town (Springfield), where bicycles outnumber horses many times over, brings home the folly of supposing that it can ever be replaced, and points the query, "How did we ever do without it?" so frequently made:

"Having occasion to call at the great firearms factory of Smith & Wesson in Springfield, Mass., the other day, the writer in conversation with Mr. Wesson spoke of the remarkable extent to which the city had extended over large outlying territory within the last few years. 'Yes,' said he, 'that is true; and the direct cause of it is the introduction of the bicycle.'

"In what way?" was asked.

"Just look out of that window," said Mr. Wesson, pointing to a window overlooking the lawn upon which stood a hundred or more wheels in a rack erected for the purpose. "These bicycles are owned and used by our workmen. Promptly at the sound of the whistle they leave their benches and machines, and, mounting their wheels, are off to their homes, where they have ample time to partake of a good, warm dinner, indulge in a pipe or cigar and a few moments with their families before returning to the factory.

"Not only do they enjoy this advantage, but they save from \$25 to \$35 a year in carfare. They can thus afford to rent houses in the suburbs, where the air is pure and their children can find suitable playgrounds far removed from the tenement districts of the city, and in addition to this they have a pleasure vehicle that affords them opportunity for healthful, invigorating exercise on holidays and before or after business hours. The result is that the demand for small cottages in the outlying districts has increased wonderfully about Springfield, as it has around all manufacturing cities throughout New England.

"The bicycle may cut down the receipts of the trolley car companies to some extent, but they can afford it. On the other hand, it has built up values of real estate in the suburbs; it has afforded thousands of workmen and business men additional comforts and a means of beneficial exercise such as they never enjoyed until the bicycle came. The modern wheel, in my opinion, has been a great reformer, and has worked a vast amount of good to a very great number of people of all classes."

We have talked sense to you, Mr. Dealer, for a few months past, about bicycles—the honestly built kind—the honestly sold kind—the

YALE BICYCLES

The riding season is on. We hope you have a stock of these bicycles. If you have the riders will have them before long, and you will have made a host of good “plugging” friends. For if a rider is pleased with his mount he will soon have his friends on the same wheel.

If you want to know any more about wheels write to

THE KIRK MFG. CO.,
TOLEDO, OHIO.

BOSTON BRANCH: 167 Oliver Street.
Edw. Buffum, Manager.



**WITHIN
THE REACH
OF ALL.**

the luxury of the best tire,

**THE
HARTFORD
TIRE,**

cannot be overestimated by those desiring *perfect* bicycle satisfaction.

It lasts twice as long, gives three times the ease of any other tire, and it can be depended on for hard service: in fact—

“IT IS AN HONEST TIRE!”

Under all conditions it has been maintained as such—and always will be.

The Hartford Rubber Works Co.
HARTFORD, CONN.

DUNLOP'S DIRE DOINGS

English Dealers are Prosecuted and Imprisoned—Repairs Cause the Trouble

It would not be easy to imagine a more uncomfortable position than is that of the British dealers and repairers with relation to tire repairs. In fact, their situation is little short of intolerable, and would not be submitted to by any class of men in this country.

The cause of the whole trouble is the determination of the powerful Dunlop monopoly to maintain its present tight hold on the trade, even to the extent of dictating in the most minute manner what repairs can and cannot be made to their tires by others than themselves. The excessively high prices of the tires—amounting to some \$12 or \$14 wholesale—and their susceptibility to repair by the replacement of each part when its period of usefulness is past, render obvious the disinclination of users to throw away old tires and invest in new ones.

Not content with the profit on new tires, the Dunlop Co. want—and not unnaturally from their point of view—to sell all the new parts—the inner tubes, the fabric and tread of the outer covers, the wires, valves, etc. As they charge for these prices commensurate with those demanded for the complete tires, the reluctance of repairers to pay tribute is readily understood. Matters are aggravated by the fact that all these parts can be procured from outside rubber concerns and all jobbers at very much lower figures.

The result is a constant friction between the Dunlop Co. and the majority of the trade. The former maintains a complete detective and prosecuting department, hundreds of men composing the former and thousands of cases being to the credit of the latter. It would be bad enough if the monopoly fell afoul only of intentional violators of the stringent and frequently unreasonable regulations maintained in force by it. But when, as is the case, tradesmen who try to keep within the law are terrorized, prosecuted and convicted, it would appear as if the limit had been reached.

From time to time circulars have been issued setting forth what repairs are allowed and prohibited by the Dunlop Co. But it is almost impossible to draw the line in every case. If, for example, a new fabric can be put on at one time, and a new tread at another, and new wires at a third, there would be no necessity for buying new tires. In the same way, every other point is liable to misconstruction, with a consequent conflict and a court of justice or even a prison cell for the offending repairer at the end of it.

In order to relieve the tension and place matters on a better basis, the Dunlop Co. has been asked to issue a full and clear statement of their position. This they have declined in set terms to do, arrogantly asserting that where there is any uncertainty ap-

plication must be made to them before undertaking to make a repair.

A more unsatisfactory situation could not well exist. The idea of a repairer being obliged to write to the company, state what his customer desired done to his tire, and then wait for a reply before touching it, would be laughable if it were not so serious. Yet this is the method that must be taken if the repairer wishes to keep out of the clutches of the law. For the small profit there is in repairs he can hardly afford to take the risk of a conviction for infringement of the Dunlop patents, especially when the Dunlop Co. is the preliminary judge of what constitutes an infringement.

To make matters worse, it appears to be the practice of the corps of detectives of the Dunlop Co. to set traps for unwary repairers. By leaving a tire for repair, said repair being forbidden, or close to the line, the unfortunate tradesman works for his own undoing by tackling it, and is promptly hauled up and arraigned for his nefarious work.

Pneumatic, yet Comfortable.

Once more the pneumatic saddle is heard from. This time it comes from across the water, a well known English saddle firm having brought it out. It is claimed to be free from the many defects of previous air saddles, and to give excellent results.

The inventor worked this saddle down, his original idea having been to devise a pneumatic vehicle in which the body is mounted on a sort of large tire, but with contact only in certain spots, by means of rubber blocks between the body and the tire. The idea of this was to leave space between these rubber blocks for the air displaced by the shocks or jolting to escape, and so reduce the vibration in the same way as a bicycle tire acts when the small portion in contact with the ground strikes an obstacle, such as a stone. Owing to the fact that there is room for the air elsewhere in the tire, the stone sinks partially into the surface, and thus the vibration is overcome.

The saddle is devised on exactly the same principle. A tubular pneumatic chamber in the shape of the letter T is mounted on the framework of the saddle. A rubber block is fixed at the peak, and a block at each end of the crosspiece of the T. On these blocks the leather rests; and as there is sufficient room for the displaced air to escape, these blocks move freely up and down, according to the hardness to which the tube is pumped.

In actual use this saddle is said to be exceedingly comfortable. As compared with an ordinary road racing saddle it is absolutely luxurious, and even in comparison with the easiest of spring saddles it possesses decided advantages. The amount of play is not nearly so great, but at the same time it is so responsive to every jar and jolt that it absorbs the ordinary small vibrations of the road far better than any spring saddle can do. The heavier bumps it may not take quite so easily, but on the other hand it does not affect the rider's pedalling in consequence of excessive play.

VIDE WINDOW VALUE

Hardware Concern Tell how to Dress and Keep Them in Order.

Many a valuable hint may be obtained by observing the ways of the average hardware dealer. His activity and ingenuity are in marked contrast to that shown by many cycle dealers, who appear to be imbued with the idea that trade will come to them without effort on their part.

A large Connecticut hardware house has formulated a set of rules descriptive of the methods employed by it in the treatment of its show windows, some of which are quite as valuable to the bicycle dealer as to those engaged in the hardware business:

"The first and last rule in regard to show windows is to keep them clean and free from dirt. The show window should be so built that it is dustproof and, if possible, air-proof; it will then be clean inside, and it is a very easy matter to keep it clean on the outside. Show windows should be washed not less than twice a week, and oftener if necessary.

"Prices should be marked on the goods when possible, as they oftentimes make a sale without any further effort on the part of the salesman. We consider it very bad policy to display anything not in our own particular line, and think that the so-called patent window displays are a delusion and a snare. Space in windows should be considered as valuable, and even more so, than advertising space in a newspaper, and it would be considered very foolish for a merchant to use a newspaper space to advertise goods that he did not sell.

"To change displays in windows during the day time is not always easy, especially in stores where there are a limited number of clerks. We have overcome this difficulty by paying two of our clerks a small additional salary for coming back one evening every week to change the displays.

"Following up a window display with a newspaper advertisement calling attention to the goods displayed in the window is always admirable. This can be easily done where concerns are running weekly advertisements in the newspapers throughout the year.

"Above all things, keep the window clean, fresh and bright."

Daddy of Motocycles.

The original Daimler so-called bicycle of 1886, shown at the Grand Palais, is a most fearsome contrivance, much like an ancient hobbyhorse, with the engine under the seat. The frame is of wood, and the weight prodigious. It is not even a true bicycle, for it has an extra wheel each side to keep it from falling on the rider and exterminating him.

MET THEIR MATCH

Officials who Blackmailed Mead are Promptly Brought to Book.

Because they refused to submit to being blackmailed, the Mead Cycle Co., 355 Wabash avenue, Chicago, had their property distrained and a notice of the levy posted on the office door by two deputy tax collectors recently.

The case came to light by the publication in Chicago last week of an affidavit in which James L. Mead, president of the Mead Cycle Co., and J. H. Phillips, manager of the same concern, charge the two men with the extortion of \$30 in illegal fees. For such an offence the statutes of Illinois provide a fine not to exceed \$200 for the first offence and a fine not to exceed \$500 for a repetition.

In the affidavit the declaration is made that on February 26 the two men called at the office of the Mead Cycle Co. for the purpose of collecting personal taxes due from that concern. The affidavit asserts that one of the men was offered a check covering the full amount of the taxes, and that "he thereupon demanded the further sum of \$30, claimed by him for alleged costs."

When this was refused the deputy collectors, the affidavit goes on to say, "distrained property of the said Mead Cycle Co. and posted a notice of levy on the company's door." Later Mr. Mead gave to the collector a certified check for the full amount of the taxes, and "in cash," at the alleged request of the collector, the \$30 demanded.

Particulars of Holley-Olive Deal.

Some further particulars of the arrangement between the Holley Motor Co., of Bradford, Pa., and the Olive Wheel Co., of Syracuse, N. Y., referred to in last week's *Bicycling World*, have been furnished by the parties interested. It appears that an arrangement has been made with the Olive Wheel Co. by D. B. Smith, who, in addition to being identified with the former company, has acquired an interest in the Holley Co. By virtue of this arrangement the Olive Co. will for the present manufacture the frames and many of the parts, the object being to facilitate the manufacture of the complete machines, and thus get them on the market in quantities early in the season.

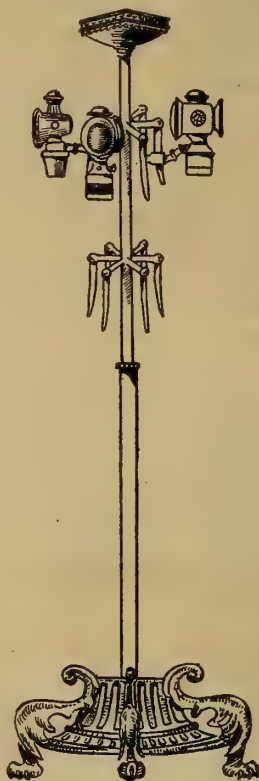
For Display Purposes.

Fertility of invention is something the average dealer will not be rashly accused of, it must be admitted with reluctance. He is much more prone to get into ruts and stay there than to reach out into fields green and pastures new.

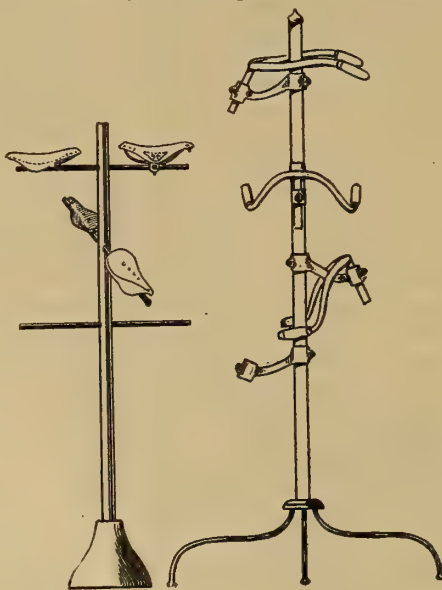
Especially is this true when it comes to advertising his goods. By advertising the more comprehensive meaning is referred to—the art of placing these goods before prospective customers in a pleasing and eye-catching manner, novel and striking instead of

cut and dried. His labors in this field are neither prolonged nor productive, as a rule, although notable exceptions are met with occasionally.

It will be remembered that some years ago the appearance of a stand for displaying bells created quite a furor in the trade.



Every dealer in the country wanted one, and nearly every one got one—for they were given away, provided the dealer placed an order for some of the bells. The idea was a good one, and should have been followed up to a much greater degree than it has been.



For, it should be remembered, stands are both useful and ornamental. Those illustrated above, for example, are neither expensive nor difficult to construct, and they set off lamps, saddles, handle bars and other articles in large demand in a way that could not be improved on.

Retail Record.

NEW STORES.

Key West, Fla.—Geer & Co.
 Roslindale, Mass.—A. L. Leslie.
 Beardstown, Ill.—Jesse Allard.
 Haverhill, Mass.—F. H. Fernald.
 Manchester, Conn.—John C. Smith.
 Mattapan, Mass.—Walter Thompson.
 Plymouth, Wis.—R. H. Weber, reopening.
 Amesbury, Mass.—F. W. Peabody, reopening.
 Windsor Locks, Conn.—F. L. Harvey, Main street.
 Meadville, Pa.—J. C. Roha, Chestnut street.
 Holden, Mass.—Fred. Taylor, Main street, repairing.
 Killingworth, Conn.—C. Lawrence Fowler, repairing.
 Manchester, Mass.—F. P. Wonson, Central street, reopening.
 Jamaica Plain, Mass.—Joseph Kennedy, 7 Seaverns avenue.
 Westborough, Mass.—W. H. Little, South street, reopening.
 Newton, Mass.—F. J. Read, 242 Washington street, reopening.
 Winthrop, Mass.—W. W. Olmstead, Shirley street, reopening.
 North Grafton, Mass.—John Richards, Main and East streets.
 Catskill, N. Y.—John Brouillard has reopened his repair shop.
 Stratford, Conn.—Clifford C. Curtis, corner Main and Church streets, reopening.
 Atlanta, Ga.—F. G. Byrd & Co., 37 Peach-tree street, has added jobbing department.

CHANGES.

Norfolk, Conn.—G. W. Scoville retired.
 Easthampton, Mass.—B. W. Smith, closed.
 Aurora, Ill.—Frank Anderson succeeds A. A. King.
 Abilene, Kan.—J. J. Kropff succeeds Frank Jaymes.
 Miami, Fla.—W. A. Lofton succeeds Miami Cycle House.
 Edinboro, Pa.—M. D. Reynolds succeeds S. D. Hanson.
 Los Angeles, Cal.—Purcel Boring succeeds Rufus F. Leefeld.
 Keene, N. H.—George B. Robertson succeeds W. K. Church.
 Owego, N. Y.—G. L. Cole, 88 North avenue, succeeds Cole & Gaskil.

Nothing Hard About This.

The poetic advertising man who once likened certain bicycles to "the pies that mother used to make" has "turned loose" another equally apt expression. Advertising a bicycle which has a red head, he coins this telling, beautiful and grammatical phrase: "There's lots of snap to the little red head."

Makes Merry in Meriden.

Meriden (Conn.) has its first motor bicycle rider, who is startling the staid citizens of that town by varying his speed from three to thirty miles per hour.

PENALTIES FOR POWER

Move to Limit H. P. of Contesting Motorcycles—Free Motor Trouble.

London, March 13.

It is rumored that a suggestion which was made many months ago and then received with ridicule, namely, that in order to bring out the actual skill of the riders motors of a limited horsepower only should be allowed to compete in motorcycle races, is likely to be enforced next season. So far as I have been able to gather, the size of the motors will be $2\frac{3}{4}$ horsepower, but it seems to me that this is erring on the high side, having regard to the fact that many country sports meetings would welcome the possibility of giving a motor race as a means of attracting a gate. As a matter of fact, the majority of young motorists who are not in the trade own motorcycles of from $1\frac{3}{4}$ to $2\frac{1}{4}$ horsepower, and it is to the younger exponents of speed riding that we must look in this direction. Apart altogether from this, there is the question of tracks. In country places these are often only fields, indifferently rolled on the morning of the races, and wholly unsuitable for high-speed work. Therefore low-powered motors would do very well. But the limitation to even $2\frac{3}{4}$ horsepower motors is distinctly a step in the right direction, and will prevent the 5 and 7 horsepower tricycles which have been made becoming popular with racing men. A motor of $2\frac{3}{4}$ horsepower is quite enough for a tricycle on a specially prepared track, and often too much for ordinary road work.

According to some of the opinions of well-known motocyclists, free motors are by no means unmixed blessings. This may possibly arise from the fact that very few of the arrangements of this kind which are now in the market are properly governed, so that the speed of the motor has to be controlled, when the engine is running free, by means of the usual levers. This is a source of trouble, because, when riding in traffic, the rider may have to stop by throwing the motor clutch out of gear, and then, if a stoppage of more than two or three seconds is necessary, slow the motor by the ignition or throttle levers. Then there is a move, and he throws in the clutch before altering the levers again, with the result that the motor stops, and he is worse off than if he were on a non-free motor machine, because he has to readjust his levers and start pedalling, the while he is being jeered at by drivers of horses and worried by officious policemen. Unless a perfectly automatic governor, arranged to act only when the motor is running freely, be provided, there will be trouble with "free-motor" machines.

So far I have seen very few of the motor

tricycles fitted with horizontal motors in actual use. It is clear that in this branch of the motor trade the De Dion has obtained such a position in popular favor that it will be hard for any of its opponents to oust it. The Phœbus Aster seems to be the most formidable rival, and as several improvements have been made in the details of this engine it is likely to be seen about a good deal during the coming season. People appear to have become so used to the vertical position of the motor that they do not look with favor upon the horizontal class, although the only real reason appears to be the fear of the cylinder of the latter type of engine wearing oval. The Bollee is quoted as an example, but it should not be, because it is a comparatively low-speed engine, and it seems pretty certain that the high-speed mo-



NEW YORK BRANCH: 214-216 WEST 47th ST.
BOSTON BRANCH: 80 BATTERY MARCH ST.,
Near Fort Hill Square.

tors show less signs of wear than those of the slower type. This applies not only to the inside of the cylinder, but to the bearings of the motor shaft and the crosshead.

It would seem that there is no end to the bad weather which has now prevailed for some months. With March we usually expect dry roads, but this year the month has opened very badly. This is deplorable, both for the cycle and motor trades, as it causes orders to hang back, with the inevitable result that the Easter rush will be more acute, and the overtime bills reduce what would be the none too large profits of the manufacturers. If only we could have a fortnight or three weeks of really good weather, I am confident that there would be a great awakening in the trade in motorcycles, especially motor tricycles and quads. But people will not place orders under the present atmospheric conditions, and manufacturers do not care to build many machines of this class for stock, for the reasons I have stated above.

LIKES THE LEVERS

For Motorcycles, Krarup Says, They are Better—Gives Some Reasons.

There is something so startling in the suggestion that the rotary or crank motion is not the best for motor bicycles that at first it almost takes one's breath away. To think of substituting something like the old Star levers, for example, is turning back the hands of the clock with a vengeance.

Yet this is exactly what is urged by M. C. Krarup in *Outing*, and it must be admitted that the theory gains in favor as it is considered.

As there are people who feel flattered whenever they are not snubbed, he says, so there are apparently builders of automobiles, and especially of motor bicycles, who feel elated as soon as their creations prove capable of moving by their own power.

On no other supposition may it be explained why some of the motor bicycles exhibited at the annual Cycle Show in New York were brought to public notice. The public took a complacent, benevolent interest in these hybrid children of the automobile and the bicycle, as an adult may follow a child's play with a patronizing smile of approval. "Something might come of it in the future."

There are builders who seem to think that something has come of it already. These wax wroth and more or less politely contemptuous with any one who ventures to express a preference for the trim, efficient and light bicycle without any but muscular power attachment.

Nevertheless, the builder is collectively useful—nay, indispensable; for he paves the way for better-proportioned efforts. His present product is, at any rate, in many respects less monstrous than the first European motor bicycles, and yet there are already English and French motor bicycles which are almost acceptable, so far as their general design goes; especially one in which the entire motor mechanism is inclosed within the rear wheel, but does not revolve with it.

It seems to have been overlooked by all designers, however, that the pedal motion of ordinary bicycles has nothing to recommend it for motor bicycles, where it is used mainly for starting the motor. The annals of the cycle industry show that the reciprocating levers of the old Star bicycle, as well as other mechanisms described in several, at present deeply buried, bicycle patents of later date, are more efficient for power transmission than the rotary pedal crank.

With the free pedal now fashionable it is less convenient, because it compels an awkward position when the pedals are not worked, one foot being either in front of or above the other, or both. Lever action would permit both feet being held in the natural position, close together and with both legs nearly stretched out; a far preferable position for the motocyclist, whose feet are normally at rest.



YOU are not making your money by gambling but by legitimate mercantile business. Why take gambling chances with new untried lamps or old and worthless ones.

There is no speculation about our lamps for we have made all kinds of lamps for 56 years, and The Majestic is the result of this experience.

EDWARD MILLER & COMPANY, MERIDEN, CONN.

The Week's Patents.

670,813. Ball Bearing. John W. Dickin-son, jr., Little Rock, Ark. Filed Sept. 15, 1900. Serial No. 30,161. (No model.)

Claim.—1. In a ball bearing, the combination, with two sleeves, one within the other, the inner sleeve being provided with a cone adjacent to each end and the outer sleeve being interiorly screw threaded at each end and provided with a longitudinal groove cut across the screw threads, an exteriorly screw threaded ball cup in each end of the outer sleeve, anti-friction devices in position to engage with said cups and cones, a washer upon each cup, the periphery of which is provided with a projection to fit within said groove, and an exteriorly screw-threaded lock nut within the sleeve outside of said washer, the cup and nut being adjustable independently of each other and without removing either of them or the washer from the end of the sleeve, substantially as described.

670,010. Motor Bicycle. Edward Y. White, San Antonio, Tex. Filed Aug. 13, 1900. Serial No. 26,771. (No model.)

Claim.—1. In a bicycle, the combination of a motor engine and pedal-driving mechanism secured together to partake of vertical movement, and connected to the driving wheel, and a spring interposed between the engine and the frame so that the engine and pedal are relieved from vibrations of the frame by the interposed spring, substantially as described.

670,125. Folding Bicycle Support. John F. Williams, Sandusky, Ohio. Filed March 29, 1900. Serial No. 10,603. (No model.)

Claim.—1. In a folding bicycle support, the combination with a supporting bar adapted to be pivotally connected with a bicycle frame, of a ground bar pivoted to said supporting bar and adapted to be turned at a right angle to said supporting bar, and also in alignment therewith, and means for holding said ground bar in its angular position to support a bicycle, and means for releasing said ground bar, whereby such bar may swing into alignment with the supporting bar, and other means for holding the ground bar and supporting bar out of supporting position, all substantially as shown and described.

670,367. Bicycle Support. Hugh Burnet, Victoria, Canada. Filed Jan. 22, 1901. Serial No. 44,245. (No model.)

Claim.—1. In a bicycle support, a clasp consisting of members 1 and 2, said member 2 being of a wedge shape on its lower edges, sloping outward forwardly; an aperture 5 arranged horizontally through the forward upper side of the member 2, in combination with the legs or supports 7 having a horizontal flexible connection arranged to lie in the aperture 5, and projections or stop pins projecting laterally from the lower opposite corners of the member 2 at its widest point, substantially as specified.

670,040. Internal Fastener for Telescoping Tubular Parts. George L. Thompson, Chicago, Ill., assignor to the George L. Thompson Mfg. Co., same place. Filed Aug. 15, 1898. Serial No. 688,614. (No model.)

Claim.—1. An internal fastener for telescoping tubular parts, comprising a tubular inner member having a longitudinally slotted wall, an outer member within which said tubular member is adapted to telescope, an expanding device located within the inner tubular member consisting of a spring-metal annulus open at one side, and so constructed as to tend to assume an external size less than the internal measurement of

the tubular member within which it is located, and means for expanding said annulus consisting of a bolt arranged to extend transversely between the ends of said open annulus, out through the slot of the inner member, and through a supporting bearing in the outer member, a yoke upon the inner end of the bolt with which the closed side of the annulus is detachably engaged, a pair of cam surfaces forming the bottom walls of channels upon opposite sides of the bolt, said cam surfaces being arranged in inwardly divergent relation, and with the ends of the annulus have yielding engagement, guide channels extending from the inner end of the bolt toward the cam surfaces for directing the ends of the annulus into engagement with the latter, and a nut threaded upon the outer end of the bolt.

670,179. Motor-Driving Mechanism. Henry J. Lawson, London, England. Filed Nov. 7, 1900. Serial No. 35,746. (No model.)

Claim.—1. in a motor-driving mechanism the combination of a propelling wheel, and a motor peripherally disposed with relation to said wheel, having its axis substantially parallel to the plane of the wheel, and a shaft by which said motor is geared to the wheel.

670,412. Pneumatic Tire. Pardon W. Tillinghast, Edgewood, R. I. Filed Aug. 14, 1899. Serial No. 727,130. (No specimens.)

Claim.—1. A pneumatic tire having therein a non-metallic fibrous-rubber mixture vulcanized to a base fabric, substantially as described.

2. A fabric consisting of woven, wound or braided fibrous material and rubber; the said fibrous material having interwoven with, attached thereto or integral therewith, non-metallic fibres or fibrous threads that extend outward at an angle to the plane of the main fibrous material, into the rubber, for the purpose of binding the rubber mass and fibrous material together in an inseparable union.

670,413. Fabric for Tires. Pardon W. Tillinghast, Edgewood, R. I. Filed May 14, 1900. Serial No. 16,678. (No specimens.)

Claim.—1. A fabric consisting of fibrous threads attached to, calendered on, embedded or inclosed in a rubber strip, and the product corrugated to form loops of one set of the threads, substantially as described.

670,178. Velocipede Crank Fastening. Emmit G. Latta, Friendship, N. Y. Filed June 19, 1899. Serial No. 721,105. (No model.)

Claim.—1. The combination with a crank shaft having an angular end and a screw thread adjacent to its end, of a detachable crank having an opening which fits the angular end of the shaft and provided in the inner side of its boss with a socket, a driving-wheel hub having an internal screw thread engaging with the screw thread of the shaft and provided with an annular flange, and a connecting ring movably secured in the socket of said crank and provided with an annular flange which interlocks with the flange of said hub, substantially as set forth.

DESIGN PATENTS.

34,253. Bicycle Frame. Charles Thomas Brock Sangster, Birmingham, England. Filed Feb. 21, 1901. Serial No. 48,377. Term of patent, 3½ years.

Claim.—The design for a bicycle frame as herein described and shown.

36,110. Metal Spokes and Nipples Therefor. Excelsior Needle Co., Torrington, Conn. Filed Feb. 25, 1901.

Essential feature.—The letter "E" between V-shaped lines. Used since January, 1899.

Tells of the Cycle's Wonders.

Just what was the source of the inspiration which guided the pen responsible for the following effusion is not known, but it must have been a good spirit, else the bicycle would not have come in for so much unstinted praise:

"The history of the bicycle reads like a fairy tale. Ten thousand years hence the plainest statement of the facts of its origin, development, uses it serves and the place it occupies in our civilization will be regarded by the scholars of that time as we of today regard Plato's story of Atlantis or the fable of Deucalion.

"That men and women could sit balanced on a wheel of wire, braced and corded like a spider's circular miracle which it fashions in the witching hours of night, and, on it sitting, outrun the horse, outspeed the dog and go flying down wooded lanes with the flight of a bird, will be reckoned as a myth that haunts the imagination and laughs at the guessing of the wise. What for improbability can equal this strange and weird creation of man's inventiveness? Or what so elusively mock human belief when once it has passed into oblivion, and, losing all record as a fact, has become merely a vague tradition?

"And if amid the ruins of some old library a fragment of a manuscript should be discovered which told how it was used by rich and poor alike, how it was adopted into armies, added to the splendor of great public pageants, obliterated castes so that princes and peasants rode side by side in public parks, contributing to popular health and happiness beyond any other single invention, that oldtime, long-buried document would cause the greatest wonder among the then existing peoples on the earth!"

Down Come DeDions.

"Why don't motors come down in price?" is the first question the uninitiated is likely to ask. He cannot understand why so apparently simple a thing cannot be turned out for a tithe of its present price, and it is only when he has made a closer acquaintance with it that he begins to understand.

Nevertheless, it will be good news to all interested in motors to learn that the De Dion prices for 1901, which have just been made public, show material reductions.

The 1¼-horsepower De Dion air-cooled motor will be sold for \$125 in the future, instead of at the previous price of \$150. The price of \$125 includes all working accessories, etc. This motor is especially suitable for bicycles or other machines requiring not more than 1¼ horsepower. It will develop that power at a speed of 2,000, normal. This motor is light in weight, and is not too powerful for efficient bicycle service.

The 2¼-horsepower air-cooled motor will be sold in the future for \$150, with accessories. The former price was \$200. This motor is especially suitable for tricycles, racing bicycles, tandem pacing machines, quadricycles, etc.

COMFORT

with

SPEED

is the

CUSHION FRAME

Motto.

The CUSHION FRAME is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold **WITHOUT IN THE LEAST DETRACTING** from the **SPEED** or **POWER** of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy, "get there" riders who at first "scoffed" the idea of **COMFORT** being combined with "speed and power" in a bicycle.

HYGIENIC WHEEL CO.,**220 Broadway, New York.**

Owners of the Cushion Frame Patents.

Courtesy Counts for Much.

About the cheapest and yet most effective factor that a cycle dealer can employ to further his own popularity, and thereby his business interests, is courtesy, and yet how often we come across self-important individuals who act as though they hardly knew the meaning of the word, says a contemporary.

There is not enough courtesy in business life. Courtesy is a lubricant for the wheels of commerce, whose value is not appreciated by as many merchants and business men as it should be. Courtesy makes friends, and nine times out of ten business is done on more or less personal friendships.

As between the salesman whom you know and are friendly with and the one whom you do not know, or who has never shown you much courtesy, the choice is easy, and who shall say that business is not influenced by courtesy? Be courteous to customers; be courteous to your employes; be courteous to everybody as far as you can.

There are, of course, some people whose own innate discourtesy leaves them out of this proposition entirely. One never can see ahead to the benefits accruing from courtesy or the incalculable amount of trouble that may rise up as the result of discourtesy. The effects of discourtesy are cumulative, and sooner or later they must be met.

A man may go on being discourteous to customers, to employes, to practically everybody, in fact, for years, but some fine day he wakes up from his egotistical dream of self-importance to find his customers buying of a more courteous man, his employes going with a more courteous employer, and friends at a premium and few and far between, because courtesy, that great characteristic that almost compels friendship with those to whom it is shown, had always been an unknown quantity to him. Discourtesy has made many a man call a meeting of creditors.

They Made an Early Start.

It is always very pleasant to be able to say "I told you so." Consequently the Iver Johnson Arms and Cycle Works are regarding with the utmost complacency the evident

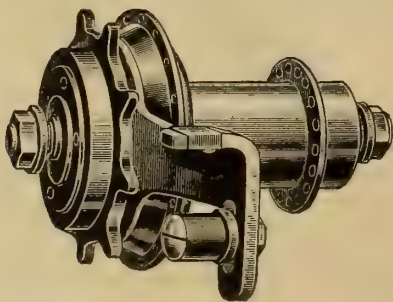
trend in the trade toward a more generous support of racing. As they view it, the result is likely to be an awakening of the old-time enthusiasm in cycling and a consequent general improvement in business. The good work done by the Iver Johnson racing team last year will be continued during 1901, Taylor and Elkes—those two top-notchers—being retained by the concern. The former will spend the early part of the season abroad, returning to this country in time to take part in the late summer and fall meets.

Changes of a Half Century.

I have just looked upon two pictures, one entitled "De Witt Clinton and Train—1831" and the other "Empire State Express—1900." The former shows the primitive locomotive De Witt Clinton, belonging to the New York Central Railroad, drawing a train of three old Concord stage coaches at its top speed of 15 miles an hour over the seventeen miles of track which constituted the New York Central system sixty-nine years ago. It is most comical. The latter exhibits the Empire State Express going 65 miles an hour, with its splendid train of rolling palaces, on a part of the same "system," now grown from 17 miles to 10,450. The road's equipment in 1831 was one engine and three made-over stages; to-day it is 3,580 locomotives, 3,600 passenger, baggage, mail and express cars and 150,400 freight cars. This equipment carried over 52,000,000 passengers in 1899 and more than 103,000,000 tons of freight. Something of a contrast!—"On the Tip of the Tongue" in the New York Press.

OUR CRANK HANGER DOES IT.**The Racycle****DOES WHAT? MAKES IT RUN EASY.****INDIANA CHAIN.**EASIEST RUNNING.
CONSEQUENTLY BEST.


Send 26 cents for Fob. \$1.80 per dozen, on card.
INDIANA CHAIN CO., INDIANAPOLIS, IND.


HERE'S THE UNIVERSAL COASTER BRAKE.

THERE IS NONE OTHER QUITE SO GOOD. IT HAS FEATURES ALL ITS OWN.

Write for Catalogue and Quotations.

Universal Coaster Brake Co., Office 318 Ellicott Square, Buffalo, N. Y.
Brandenburg Bros. & Wallace, Selling Agents, New York and Chicago.


CLEVELAND


EXCELSIOR

HEADQUARTERS

STEEL BALLS


AND

BALLS OF OTHER METALS

CENTRAL DISTRIBUTING Co


302 MOONEY-BRISBANE BLDG

BUFFALO, N.Y.


GRANT

STRENGTH

FINISH


CHICAGO

QUALITY
IN
MATERIAL

ACCURACY
IN
SIZE

SUNDRIES AND REPAIRS

Columbus' Revised Schedule Takes in Both
—Organization is a Success.

Having every reason to feel satisfied with the work accomplished by their association last year, the Columbus (O.) Cycle Board of Trade met recently and compiled a revised schedule of repair and sundry prices.

In a letter to the Bicycling World Oscar S. Lear summed up the situation by saying: "We consider that our organization accomplished considerable good in regulating trade prices, and the giving of lamps and other sundries, besides the cash payment on a wheel, and we expect to continue."

The Columbus organization goes a step further than most of its kind establishing a standard price list on sundries as well as on repair work. Last year's list was considered as being highly favorable to buyers, but the new one has in some instances been shaded. As now in effect the list follows:

LIST OF SUNDRIES.

LAMPS.

Solar Gas Lamps.....	\$2.50
20th Century Gas Lamps.....	2.50
Breckenridge Gas Lamps.....	2.50
Lightweight Oil Lamps.....	1.00

CARBIDE.

2-lb. cans, 25; 5-lb. cans, 50; bulk, 10 straight.

TIRES.

	Off.	Put on.
Morgan & Wright tires, per pair.....	\$6.00	\$6.50
Morgan & Wright casings.....	2.25	2.50
Plain inner tubes.....	1.00	1.25
Goodrich No. 999.....	8.00	8.50
Goodrich No. 19.....	7.00	....
Goodrich No. 10 M. & W.....	6.00	6.50
Palmer Regular.....	8.00	8.50
Palmer tandems.....	12.00	12.50
G. & J. complete tire, no rim,		
per pair.....	10.00	....
G. & J. casings, each.....	3.50	....
G. & J. inner tubes, with valve,		
each.....	1.50	....
G. & J. rims, pair.....	1.00	....
G. & J. valves, each.....	.25	....
Defender tires, per pair.....	7.00	....
Morrow coaster.....	7.50	....
Acme.....	7.00	....
Wyoming.....	5.00	....
Kelly bars, plain.....	2.00	....
Kelly bars, extension.....	2.25	....
Hussy forward extra bar.....	2.25	....
Foot pumps.....	.50	....
Hand pumps.....	.25	....
Oil, 2-oz. bottle.....	.10	....
Axle bracket.....	.10	....
Head and fork bracket.....	.25	....
Veeder cyclometer.....	1.00	....
Shepard cyclometer.....	1.00	....
Shepard trip.....	.75	....
Special spoke.....	.10	....
Rims, plain, each.....	.50	....
G. & J. rims, each.....	.75	....
Mud guard, off.....	.35	....
Chain guard, off, each.....	.35	....

REPAIRS.

Frames cut down and re-enamelled, plain colors, wheel brought knocked down.....	\$5.00
Re-enamelling, plain colors, knocked down.....	2.50
Re-enamelling, plain colors and striped.....	3.50
Re-enamelling, fancy colors and striped.....	5.00

Taking wheel apart and putting to- gether, extra.....	1.00
Cleaning, bearings only.....	1.00
Overhauling bearings and cleaning nickel.....	1.50
Truing and aligning frame.....	\$1.50 to 2.00
Truing and aligning forks.....	.50 to 1.00
Spokes, one.....	.25
Spokes, two.....	.35
Each additional put in.....	.10
New rim put on, plain.....	1.50
Pair rims put on, laminated.....	2.00
G. & J. rims put on, each.....	2.00

TRUING WHEEL IN FRAME.

Fair condition.....	.25 up
Bad condition.....	.50 up
New fork stem.....	1.50
New fork tips.....	.75 each
New fork side, one.....	1.50
New fork sides, two.....	2.50
New fork complete.....	3.50

PUNCTURES.

Punctures, double tube, laced tires.....	.50
Single tubes, one plug.....	.25
Single tubes, two plugs.....	.50
Jiffy or Vimoid, each hole.....	.25
Clincher tires.....	.35
Schrader valve and stem.....	.50
Cement on tire.....	.25
Vulcanizing, casing and repairing tube, small hole.....	.75
Vulcanizing, casing and repairing tube, large hole.....	1.00
Vulcanizing end of inner tube, re- moved and replaced.....	.50
Vulcanizing valve stem, single tube.....	.75
Straighten crank.....	.25
Straighten handle bar.....	.25 up
Truing sprocket.....	.25 up
Cleaning bearings.....	1.00
Vulcanizing single tube, small hole.....	.50
Vulcanizing single tube, large hole.....	.75
General overhauling.....	1.50
Cleaning spokes and varnish and enamel rims, per pair.....	1.00 up
Chain guard complete and lacing.....	1.00
Dress guard complete.....	1.00
Lacing mud guard.....	.50
Lacing chain guard.....	.25
Put on rear stays.....	.50
Pedal rubber put on.....	.40
Repair chain.....	.25
Chain guard complete.....	1.00
Crank axle.....	2.50
Axles.....	.35 to .50

No Lagging Down There.

Having become interested in cycling much later than the United States, it is only natural that the South American countries should still retain an unabated interest in the pastime. The representative of an exporting house who has just returned from South America says that at present, as indeed has been the case for three or four years past, bicycling in that country is far and away the most popular of the outdoor sports.

In the larger cities of Brazil and the Argentine the sport to-day is at the height of its popularity, and although the women there were at first somewhat in doubt as to the propriety of riding in public they quickly followed the example of some of the social leaders, who boldly went in for the sport so soon as they had mastered their wheels, and now there are as many petticoats awheel as there are knickerbockers.

The E. H. Corson bicycle factory at Manchester, N. H., has been leased by a shoe company.

EVERY
DEALER

HAS HEARD IT—

It runs something like this:

"Our Bicycle is of the highest possible grade. There is none better; there are few, if any, as good. Nothing that money can buy nor human effort evolve has been spared to make the — the very best bicycle on top of this grand old earth."

The manufacturer—his traveler—his catalog—his advertisement each and all, and many of them, have again and again repeated the claim—the assertion, or whatever they may call it. The language may differ, but its tenor is the same.

TO TEST ITS TRUTH

Too often such claims are empty. They are made up mainly of words, warm breath and black ink. But there's a way of telling the false and the true—a way of finding out if words are empty or if they mean what they say. There's no question about the quality of the Persons saddle—there never was—there never will be, and

THERE'S

NOT A SQUARE MAN

IN THE TRADE

who does not know it or who will not admit it. For objects of his own he may quibble or "talk in circles," but that the Persons is the very pinnacle of saddle construction they all know and know only too well. The very saddle almost speaks for itself.

The point is right here: When a bicycle maker or his spokesman asserts the highgradeness of his product—when he asserts that in its construction and equipment no expense or effort is spared—when these claims are made, let the dealer test their truth; let him stipulate that Persons saddles be fitted to bicycles he orders.

If they are given him without quibble, the dealer may be sure that the claims are true. If, instead, there is a quibble or a refusal, the moral is as plain.

The Persons saddle is made without regard to cost. Quality is placed above price. The bicycle manufacturer who does likewise cannot refuse the saddle when it is specified.

PUT HIM TO THE TEST.

Meanwhile we invite your inquiry.

The Persons Mfg Co., Worcester, Mass.

MEETS ALL OBJECTIONS

New Acetylene Lamp from Abroad a World-Beater, if Claims are Verified.

Although acetylene gas lamps have attained their greatest popularity in this country—and particularly in the West—they have not lacked for users across the water.

Nevertheless, neither there nor here have they made the progress which was confidently looked for, and this check is generally ascribed to certain drawbacks and shortcomings which the lamp makers have been unable as yet to overcome. In describing a new lamp which has just been brought out in England the Cyclist sums up these faults in this way:

"The chief drawbacks to even the best of acetylene lamps constructed on the usual principles are due to the fact that the water which is added to the carbide forms a moist mass with the decomposed carbide, and continues the action of the lamp long after it has been put out, the results being (1) unevenness of gas production, (2) smell from excess production of gas, (3) smoking from the same cause, (4) inability to use for short intermittent periods, (5) great waste of carbide owing to this continuing action, (6) a disagreeable damp residue to be got rid of when refilling, (7) choking up of the burners, and (8) care necessary in cleaning and filling to secure good results.

"In particular, No. 4 has told most strongly against success. The slap-dash man who can fill an oil lamp in a minute or so, even if he does slop oil all over the place, could not do with it; the busy man could not give the few minutes' necessary attention to it, and the man whose use necessitated a constant relighting for short periods found it of little good.

"The clearness, beauty and brightness of the light are appreciated by all, and we be-

lieve it is generally conceded that if a gas lamp were produced which would burn eight or ten hours at one filling, which would not use up its supplies when not lighted, and which could be turned on and off like an ordinary gas tap, it would meet with considerable support.

"Such a lamp has, we are pleased to learn, been produced, and as it depends for its action upon an entirely new principle it appeals to us as one of great promise.

"In producing this lamp the inventor has followed nature, for, noticing that carbide exposed to the air was rapidly decomposed by the moisture contained in the air itself, he produces his gas by the aid, not of water, but of damp air, and he does it in the following manner: A water cup or outer case is used, which is fitted with a false bottom, which latter is flexible, forming a diaphragm. A carbide chamber is used, which is furnished with a central tube carrying a spring-seated valve and pin. The pin projects slightly below the bottom.

"The carbide chamber is put into the water cup, and the pin is thus brought in contact with the bottom, and by it pushed up, thus opening the valve and allowing the air (now moistened by the water) to enter and come in contact with the carbide. Gas is thereby generated, and this goes on until the space above the carbide is full, and the gas under some pressure, when the flexible diaphragm below is forced out, thus relieving the pin of pressure and enabling the spring to close the valve.

"As the gas is used up, the pressure lessens until the valve is once more automatically opened, and more damp air admitted to the carbide, and so it goes on maintaining automatically a constant pressure and constant even generation. As there is no excess of moisture there can be no excess gas generation, and the act of turning off the gas at the jet by stopping the outflow causes pressure to rise in the chamber and shut off the moist air supply.

"The net result of this arrangement is that no heat is generated, carbide is not wasted, burners are not choked, a perfectly steady illumination is secured, there is no mass of wet lime as residue, the decomposed carbide pouring out of the container as a dry powder; owing to there being no waste, a saving of 40 per cent in carbide is made, and one filling will give ten hours' aggregate illumination; while if lighted to-day and used for a few minutes every day until exhausted, or if not used again for a month, it will still be in good working order, and may be relighted by simply 'turning on the gas.'

"Such, at any rate, are the claims made for the new construction, which, if substantiated in practice, should go far toward solving the acetylene problem and enabling this beautiful illuminant to take that place in our daily life which we have always felt it should occupy. As, however, in a matter of this kind 'the proof of the pudding is in the eating,' we can say no more until after trial, which we are promised at an early date. In the mean time we sincerely hope the lamp may pan out as represented, for the cry of the cyclist, the automobilist and the public generally is ever 'more light!'"

As Viewed in Lowell.

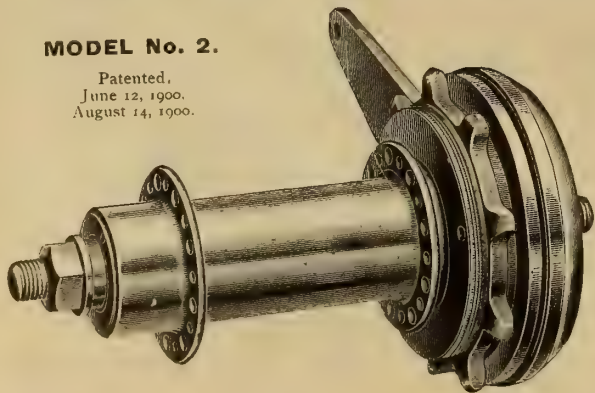
After such eloquent testimony to the worth of this year's bicycle as is borne by the Lowell (Mass.) News, it is not easy to see how the Lowellites can resist the impulse to buy them.

"The bicycle for this year is a splendid machine," it says, "made on honor, beautiful in appearance, with a cushion frame to deaden the jolt of uneven highways, and with the chain tucked out of sight. It may be said that the new century bicycle has reached perfection, and that wheeling on it comes near to flying. Celerity of movement has been sought by inventors, and they have been encouraged by manufacturers to put their best thought into the parts of the wheel. To-day the American-made bicycle is the best in the world. Compared with it the best product of the Old World is an ice wagon, so to say."

"E Z" COASTER BRAKE.

MODEL No. 2.

Patented.
June 12, 1900.
August 14, 1900.



SIMPLICITY

LESS PARTS THAN ANY OTHER COASTER MADE.

With the "E Z" COASTER BRAKE fitted to your wheel all fear at once leaves the most nervous person, for you are in position to stop the wheel immediately—and always have it under control.

Your 1901 wheel should be fitted with the "E Z."

Any dealer can furnish it.

Send for Catalog "C."

Sole Manufacturers, REED & CURTIS MACHINE SCREW CO., Worcester, Mass.

Elfin
Bicycles

None Ever so Good as The Elfin.

We were the originators of Juvenile Bicycles—hence leaders in building them.

Through the years we have kept ahead—we still build the best Juvenile.

The 1901 Elfin is the best Juvenile we ever built, and carries with it more good features in construction and equipment than any other. To say nothing of the Reversible Crank Bracket and Easy Chain Adjustment, which no other Juvenile in the world has, where can you find a Juvenile equipment like or in any way to compare with ours?

For example, where is one with an indestructible Leather Grip, Hartford Tires and Fauber Hangers?

So in every other part we can score a point in favor of the Elfin.

Send for our agent—or catalog.

Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.

Cycle Exports Still Large.

While not up to the mark of the two previous lists, the exports of cycles and parts for the week ending March 19 were of considerable volume, aggregating some \$50,000. Great Britain and her colonies made the biggest purchases, while France, Germany and Denmark also bought freely. Even far-off China, notwithstanding its distracted condition, which is said to have killed foreign trade, is found among the buyers. The complete record follows:

Antwerp—14 cases bicycle material, \$225.
Amsterdam—1 case bicycles, \$45.
British East Indies—30 cases bicycle material, \$1,395.
Bremen—5 cases bicycle material, \$115.
British Australia—18 cases bicycles, \$1,787; 2 cases bicycle material, \$200.
Brussels—8 cases bicycles, \$277.
British West Indies—79 cases bicycles and material, \$886.
Copenhagen—141 cases bicycles, \$1,798; 55 cases bicycle material, \$2,315.
Central America—1 case bicycles, \$150.
Christiania—2 cases bicycle material, \$36.
Cuba—7 cases bicycle material, \$216.
China—15 cases bicycles, \$549.
Chili—1 case bicycles, \$15.
Gothenburg—26 cases bicycles, \$1,345.
Havre—181 cases bicycles, \$4,340; 104 cases bicycle material, \$3,495.
Hayti—4 cases bicycles, \$66.
Hamburg—257 cases bicycles, \$4,825; 87 cases bicycle material, \$2,479.
Japan—7 cases bicycles, \$977.
Liverpool—18 cases bicycles, \$327; 8 cases bicycle material, \$436.
Lausanne—16 cases bicycles, \$1,500.
London—606 cases bicycles, \$6,140; 169 cases bicycle material, \$6,351.
Manchester—1 case bicycles, \$75.
Mexico—1 case bicycles, \$40.
Philippines—13 cases bicycles and material, \$454.
Rotterdam—86 cases bicycles, \$1,478; 9 cases bicycle material, \$345.
Southampton—30 cases bicycles, \$1,554; 9 cases bicycle material, \$2,526.
St. Petersburg—1 case bicycles, \$55.
Santo Domingo—1 case bicycles, \$17.

Thomas Says There is Nothing in it.

Reports emanating from Middletown, Conn., have been in circulation for the last week to the effect that a representative of the E. R. Thomas Motor Co. had been looking over the available buildings in that town, with a view to removal from Buffalo there.

That the report is erroneous, or at least premature, is evident from the reply to an inquiry addressed to the Thomas company on the subject by the Bicycling World. "The report which you mention," they say, "in regard to moving to Middletown is news to us; evidently the local Board of Trade has got a boom streak on, as there is nothing in it at the present time."



If all the roads were asphalt,
And rails were rolled aside,
And every rut was tightly shut,
What comfort, then—to ride

Any Old Machine.

Not till the lobster leaves us
These much desired events
Will come to stay, so dealers may
Stop selling

Orients!



Meanwhile the best is none too good. Quality counts and the ORIENT MILAMINIT is fully up to the limit of bicycle quality. Do you prefer

Keeping Selling

the other kinds to

the Orient line?

This is a leading question which decides whether you are to lead in your locality with the leading bicycle, or just scrub along in 1901 and only stay with the stayers.

There is no time like the present time to decide this matter.

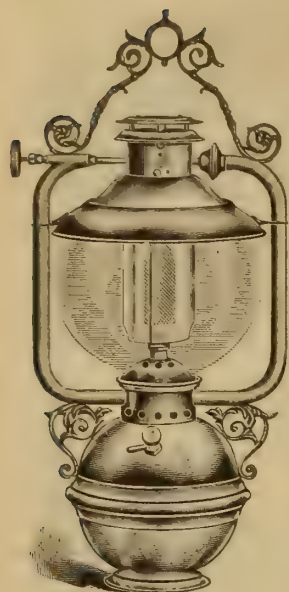
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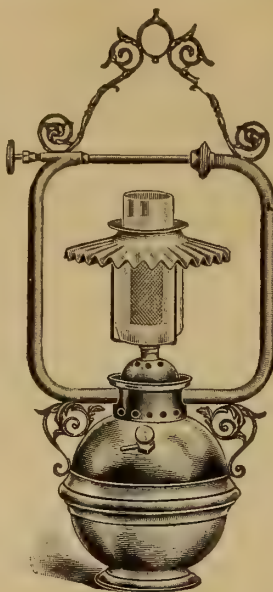
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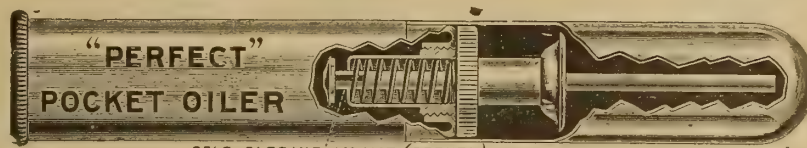
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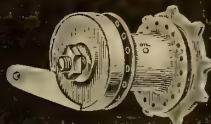
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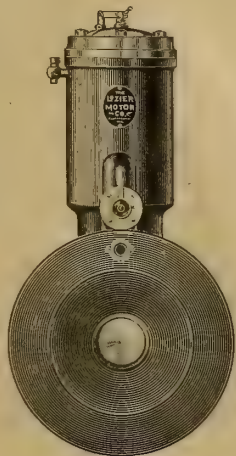
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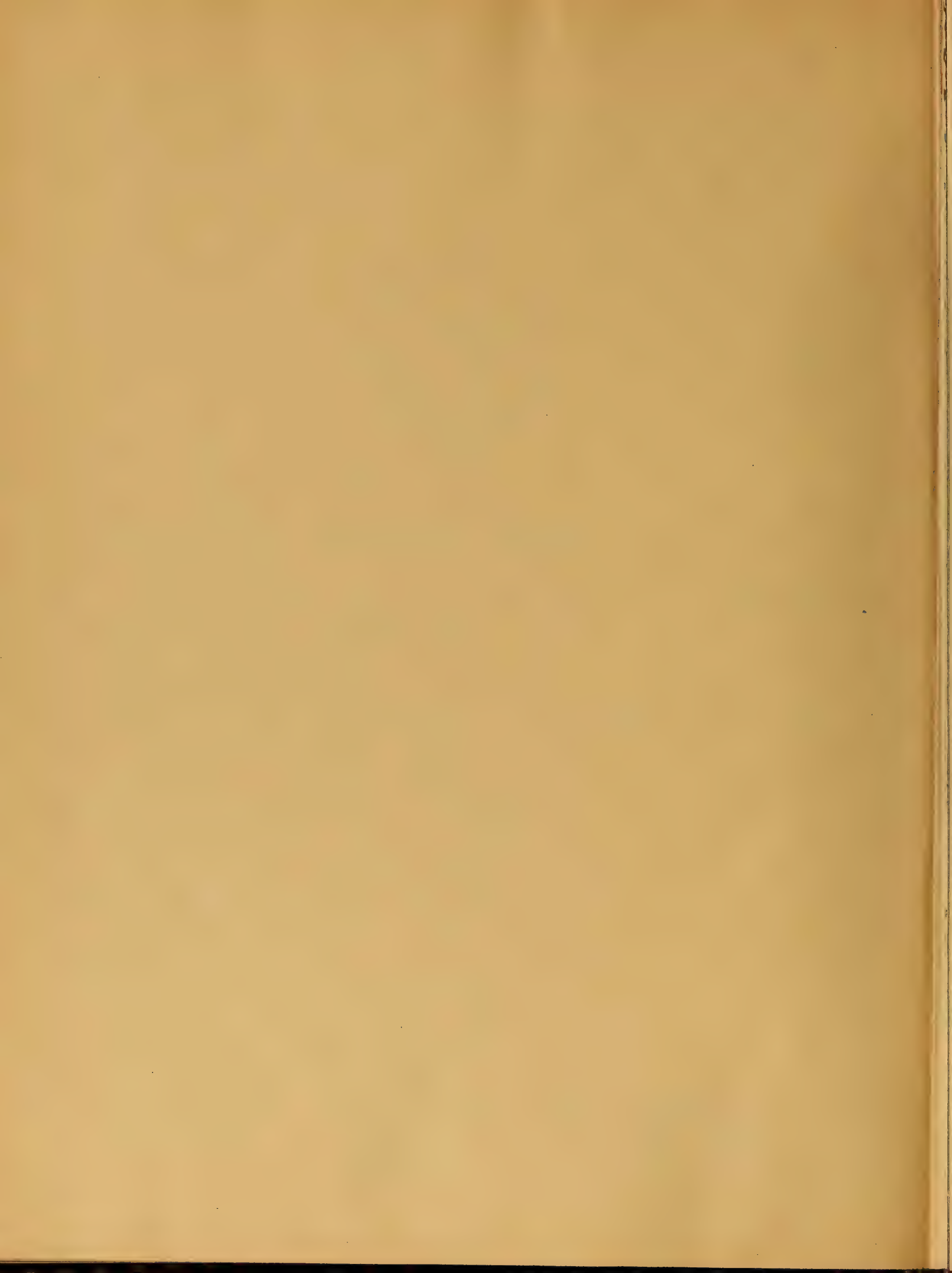
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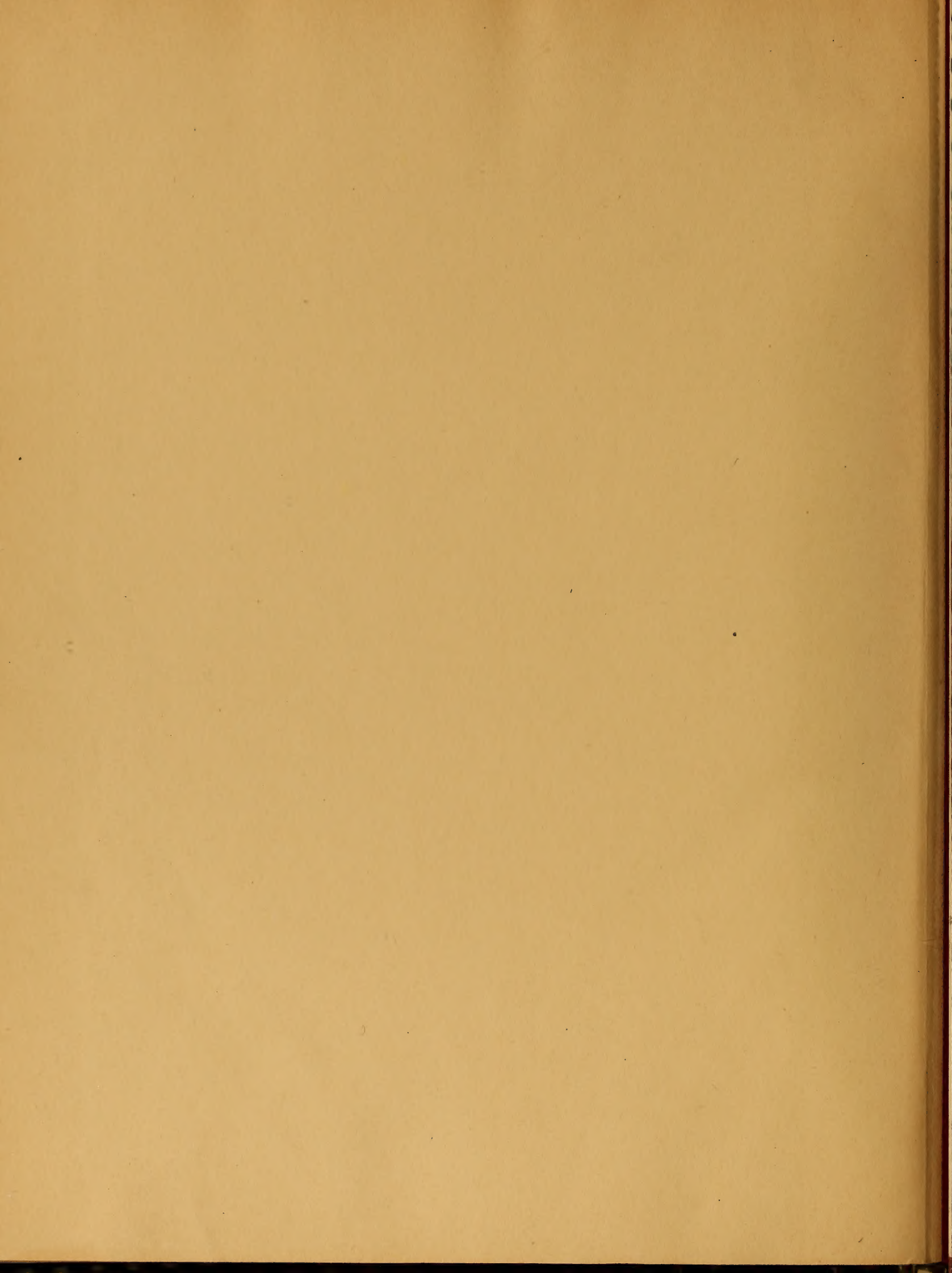
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